European Commission
Directorate-General for Science, Research and Development

European Research Fellowships 1987-93

The experiences and views of the fellows, supervisors and administrators

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für Berufs- und Hochschulforschung
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1997

EUR 17520 EN

Published by the
EUROPEAN COMMISSION

Directorate-General XII
Science, Research and Development

LEGAL NOTICE

Cataloguing data can be found at the end of this publication

Luxembourg: Office for Official Publications of the European Communities, 1997

ISBN 92-828-0782-7

Printed in Italy

PREFACE

Since the mid 1980ies the European Commission has implemented a series of schemes and programmes providing - among other things - research fellowships to young European scientists enabling them to carry out a research project in a laboratory or institute outside their home country.

While these consecutive fellowship schemes and programmes have inevitably evolved over time with regard to scope, ambition and available resources they have always been particularly attractive to both young scientists and their potential host institutes; a dramatic level of oversubscription has in fact been characteristic for all these schemes and programmes.

For the services of the European Commission it is however not sufficient to know, how many hundreds and thousands of young scientists in Europe would wish to gain research experience in a laboratory or institute abroad and how many have succeeded to do so thanks to a European grant. It is more important to have a sound understanding of the impact of the fellowships on the individual fellow as well as on scientific supervisors and contract administrators in the host institutes, in order to elaborate on the many positive experiences of individuals and institutions and to learn from mistakes which have been made in the past.

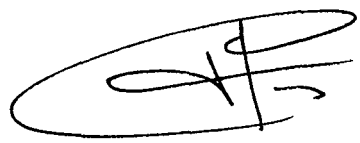
It is for this reason that the present survey has been commissioned. It is complementary to other European Commission initiatives such as the organisation of seminars, aiming at the provision of first hand information and feedback from programme participants.

Since the survey has been launched and completed, things have substantially evolved further. The *"Human Capital and Mobility Programme (HCM)"* has been replaced by the *"Training and Mobility of Researchers (TMR)"* programme and as this report goes to press the Commission staff is in the middle of drafting the outlines of the new programme, to follow TMR from 1999 onwards.

This new programme will be a continuation - with the necessary adaptations - of the TMR programme just as TMR was a necessary evolution beyond *"Human Capital and Mobility"*.

EU research programmes and the research fellowship schemes are insofar a true reflection of the development of the European Union at large: they set out an ambitious objective, i.e. the creation of a true community of European scientists and researchers, and move towards it progressively, on a step-by-step basis, adapting and improving initiatives as required and as suggested by experience and new insights.

On behalf of the European Commission I would like to thank the authors *Ulrich TEICHLER* and *Friedhelm MAIWORM* for their commitment to this project and for their ability to translate the results of a complex survey into a dense report which will be of use to all those who wish to support the future generation of European scientists and research engineers.



A. MITSOS
Director

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1. Introduction

On 16 March 1992, the Council of the European Communities made a decision of setting up the Human Capital and Mobility (HCM) programme within the Third Framework Programme of Research and Technological Development. This provides funds, inter alia, for a scheme of European mobility fellowships with largely decentralised management by host laboratories. The major target group of the programme were young researchers of the European Economic Area wishing to spend a research period abroad in another country. In contrast to previous fellowship schemes, first degree students were not longer supported and possible candidates are expected to have at least graduated at an institution of higher education. In addition to the fellowships for young doctoral and post-doctoral researchers, grants could be provided for experienced researchers either for teaching activities or for visits of research laboratories with special facilities or techniques.

With the introduction of the HCM programme not only individual fellows could apply for an EC grant but also host institutions were given the opportunity to apply for a contingent of grants to be awarded to fellows pre-selected by the host institutions. This, however, remained an exception.

Beside the HCM programme, fellowships (previously called sectoral grants) were awarded continuously under the various sectoral programmes administered separately by CEC officers. The conditions and the amount of support in this framework was identical to those in the HCM programme.

The fellowship grant was expected to cover living expenses, social security, taxes and mobility costs of the research period. In this respect, fellowships provided within RTD Programmes of the European Union differed from other European mobility programmes, such as the ERASMUS programme for the mobility of students which is only aimed to cover the additional costs of living abroad. In the framework of HCM and similar programmes, the host institutions are also provided subsidies for administrative and research costs.

In the mean time, the HCM programme was renamed into Training and Mobility of Researchers (TMR) and was slightly modified. Most recently, the fellowships were named Marie Curie Research Training Grants.

As part of evaluation activities, European Commission provided financial support to the Centre for Research on Higher Education and Work of the Comprehensive University Kassel (Wissenschaftliches Zentrum für Berufs- und Hochschulforschung der Universität Gesamthochschule Kassel) to conduct a survey of EC fellows who applied successfully and were selected for an individual fellowship between January 1987 and December 1993 and started their fellowship not later than December 1994, including both fellows supported under the HCM and sectoral programmes, and of their host laboratory supervisors and administrators. The survey addressed the fellows' career, they academic and living experiences during the research period in another European country, the administrative and financial context as well as the outcomes of the fellowship.

The study was facilitated by the decision taken by the Commission to provide financial support as well to the Centre in Kassel to set up a database of all fellows supported since the mid-1980s. It also could be enriched by a comparison with the experiences of fellows supported by the European Commission between the late 1960s and mid-1980s who had been also surveyed by researchers of the Centre in Kassel (U. Teichler et al., *Experiences and Careers of Science and Engineering Fellows Supported by the European Community*, Luxembourg: Office for Official Publications of the European Communities, 1990, EUR 12932 EN).

Many staff members of the DGXII of the European Commission supported the project in various ways. Jürgen Rosenbaum and Alessandro Pozzo advised the project regarding the content and the administration. Various staff members of the Centre for Research on Higher Education and Work were involved in the project as well. Notably, Bernhard Krede established the data file, and Kristin Gagelmann was in charge of various administrative processes of the project as well as the word processing of this report. Last not least the study could not have been undertaken without the readiness to take time and to share experience on the part of the fellows and their supervisors and administrators. We are grateful to all who supported this study.

2. Objectives and Methods of the Study

2.1 Aims and Framework of the Study

Over the last twenty-five years, the European Commission has provided altogether more than 5,500 training fellowships to young scientists from a member state of the Community or an associated state to spend a period in another country of the European Economic Area. Most persons were supported either at the level of doctoral studies or at the level of post-doctoral research work. However, there were also some undergraduates as well as some experienced researchers spending a period abroad, the latter in order to train young scientists or to make use of equipment not available at there home institution. Fellowships were awarded in the framework of R&D Programmes of the European Union of which the most visible were STIMULATION, SCIENCE and HUMAN CAPITAL AND MOBILITY. However, EC grants for the mobility of scientists were offered under about 100 different, mostly sectoral programmes.

The first support programmes started in 1958. Until 1977, the grants were only associated with EURATOM research. From 1977 to 1984, there were two 4-year training programmes, and fellowships were made available in all fields covered by the Community R&D activities. However, fellowships were awarded in practise only in a few sectors. In 1985, the support measures were "sectoralized", and fellowships were made available in principle in all cost-shared research programmes managed by the Directorate-General for Science, Research and Development (DG XII of the European Commission). As the various R&D programmes had budgetary responsibility and were in charge of the selection of candidates, the new fellowships have been described by the Commission since 1986 as "sectoral grants in sciences and technology". A further change in the structure of support measures took place in 1990 when the support to fellows was accompanied by an institutional subsidy or a research grant aiming to cover the administrative and research costs of the host laboratory.

With the implementation of the Human Capital and Mobility Programme (HCM) in 1992, a substantial increase in the number of fellowships by the European Commission can be observed. The revised support structure does not only allow individual fellows ("individual fellowships") to apply for research grants but also provides the opportunity to the host institutions to apply for a certain number of fellowships ("institutional fellowships") and to get involved in the selection of possible candidates. Additionally, host institution subsidies were provided by the Community aimed to cover at least parts of the administrative and research costs.

A few evaluation studies have been undertaken previously addressing sections of the EC training fellowship programmes. Notably, questionnaires were sent to some host institutions and some fellows by a training evaluation panel in 1983/94 (cf. P. Levaux et al. *Evaluation of the Community's Programme 'Scientific and Technical Training'*. Luxembourg: Office for Official Publications of the European Communities, 1984 (No. EUR 9202)). In 1988 as part of the biotechnology evaluation, some supervisors and current or former fellows were interviewed or surveyed with the help of a written questionnaire (cf. C. af Malmborg et al. *Evaluation of the Biomolecular Engineering Programme BEP (1982-1986) and the Biotechnology Action Programme BAP (1985-1989)*. Luxembourg: Office for Official Publications of the European Communities, 1984 (No. EUR 11833)).

In 1989, a large scale evaluation of the EC training fellowship programmes was undertaken by the Centre on Higher Education and Work at the University in Kassel (WZ I). All EC fellows supported between 1968 and 1988 as well as all fellows and their supervisors sup-

ported in the framework of the International Scientific Cooperation Scheme (ISC fellows) between 1985 and 1989 were asked with the help of a written questionnaire about their experiences during the fellowship and the impact of the fellowship for research and career opportunities (cf. U. Teichler, P. Ecker, R. Holtkamp and F. Maiworm: *Experiences and Careers of Science and Engineering Fellows supported by the European Community.* Luxembourg: Office for Official Publications of the European Communities; 1984 (No. EUR 12932 EN); see also U. Teichler, "Evaluation of the EC Training Fellowship Programme Based on a Fellows' Questionnaire Survey," *Scientometrics*, vol. 21, no. 3, pp. 1991, 343-365; U. Teichler, G. Lewison and L. Massimo, "Survey of European Community Transnational Research Fellows," *Research Evaluation*, vol. 1, no. 3, 1991, pp. 137-147).

In order to continue the evaluation of the EC fellowship programmes on a large scale, the Centre on Higher Education and Work was commissioned by the DG XII in spring 1995 to undertake a further study covering the period between 1987 and 1994. The current study, which was conducted between spring 1995 and June 1996 aimed to

- provide a statistical profile in terms of home country, fields, training level, duration of periods abroad, etc. of all fellows;
- survey the views and experiences of former fellows and determine their employment records;
- survey the views and experiences of the supervisors about the conditions and outcomes of the work of the fellows;
- survey the views and experiences of the administrative responsibles at the host institutions regarding the financial and contractual conditions between the EC on the one hand and the fellows on the other.

With the help of written questionnaires, information was gathered on various aspects from the three target groups. The supervisors and fellows were asked to provide information about their personal background, the ways they got informed about the EC fellowships, prior contacts to each other, the application for the fellowship, conditions and work experiences during the fellowship and the research results. All target groups were asked about the administrative and financial conditions of the EC fellowships. Last but not least the questionnaire for fellows addressed matters of employment and career after the completion of the fellowship. Various topics were questioned in the same way in fellow and supervisor questionnaires. Thus, a comparison could be undertaken of the perception of research conditions, administrative and financial matters and impacts of the fellowship by different actors and beneficiaries. Also to allow a comparison of the results of the surveys to the results of the previous study conducted in 1990 and to identify possible changes over the time, a substantial proportion of questions were taken from the questionnaires employed in the previous evaluation study.

In addition, this study can make use of the results of another project conducted more or less at the same time. From autumn 1994 to late summer 1995 staff members of the Centre for Research on Higher Education and Work were concerned with the validation of the database of research fellows of the European Commission. The aim of this project was to establish a database which comprises all the information available on existing computer files or on hard copies in the administrative files of the Directorate General XII - Science, Research and Development. On the basis of this database a wide range of basic statistics can be provided, for example changes in the profiles of applicants and fellows regarding their home and host country, discipline, status category and gender.

2.2 Procedures and Methods of the Study

Both the statistical survey and the surveys based on written questionnaires addressed persons who had been awarded an EC fellowship or were concerned with EC fellows as super-

visors or administrators since 1987. The key population of the questionnaire surveys were persons being awarded a fellowship in response to an individual application between 1987 and 1993 who actually began the fellowship in 1994 at the latest. The small number of EC fellows receiving an "institutional fellowship" in the framework of the HCM Programme were excluded from the study for practical reasons, because addresses could not be obtained easily. By the time the survey was undertaken, not all fellowships were completed. All participants, however, had at least six months of experiences at the host institution.

Our analysis of the administrative files of the European Commission shows, that
- 11,735 proposals for individual fellowships were submitted to the European Commission between 1987 and 1993;
- 4,321 proposals were approved to be supported;
- 421 fellows declined the fellowship for various reasons;
- 3,900 fellows accepted the fellowship;
- 3,853 fellows started the fellowship period not later than December 1994 (the target group of the questionnaire surveys);
- 3,083 supervisors at the host institutions were responsible for one or more of these fellows; finally
- 2,347 administrators at the
- 920 host institutions were in charge of the fellows.

In order to acquire a statistical profile of the programme and the participating fellows, information was collected from the administrative files on
- the EC fellowship programme (type of fellowship programme, respective research programme, year of implementation of the programme);
- the profile of the fellowship (discipline, home institution and host institution country, start and duration of the fellowship, grant category);
- biographical data (name, age, nationality, gender, academic degree at the time of application and field of study).

In addition, addresses were collected of the fellows, their supervisors and administrators at the host institutions available in the files.

All fellows of the defined population were sent a questionnaire which was largely identical with the questionnaire employed in the evaluation study undertaken in 1989. In the 16-page questionnaire, which comprised 70 questions with almost 350 variables, fellows were asked to
- provide biographical information and profile data about the fellowship period;
- explain their choice of the EC fellowship;
- report about their bursary, the administrative process regarding the fellowship as well as financial arrangements;
- characterise their professional experiences at the host laboratory;
- comment the living conditions and life in the host country;
- report on their career after completion of the fellowship period and to assess its impact;
- comment generally the EC training fellowship programme and to recommend potential improvements.

The supervisors were sent a questionnaire half as long (8 pages, 35 questions, about 150 variables) as the questionnaire for fellows. For each fellow advised during the period of consideration, a separate copy of the questionnaire was provided. Supervisors were asked to
- provide information on their biographic background and the host laboratory;
- report on previous contacts to the fellow or to his/her previous home institution;
- characterise the conditions and results of the fellow's research;
- assess the impacts of the fellowship on the fellow, the host institution, etc.

Notably, questions regarding the research activities and conditions were more or less identical in both questionnaires, i.e. those for supervisors and those for fellows.

A short questionnaire (4 pages, 20 questions and about 100 variables) was sent to the administrators at the host institutions. Because the files of the Commission neither allow to identify the person primarily concerned with the administration of EC fellows nor give answer to the question whether the administrative tasks are organised on a central or a departmental level of the institution, all persons mentioned in the files as administrators were sent a questionnaire and asked to

- provide some information on the profile of the institution;
- comment the rules established for the administration of EC fellows;
- report about EC subsidies to the host institution;
- assess and possibly to recommend improvements of financial support and the communication with the Commission.

Most questions of all three questionnaires were closed, i.e. providing categories for replies. Ample room, however, was furnished for open statements, i.e. replies to the category 'other' which was a possible option in most of the questions, and final comments.

Considerable efforts were undertaken to trace the addresses of the fellows:

- initially questionnaires were sent to the fellows' addresses provided by the Commission;
- all supervisors included in the study were asked to report the most actual address(es) of their fellow(s).
- reminder letters were sent, if applicable, to the fellows' actual addresses provided by the supervisors or to the permanent addresses named in the application and award files.

A second copy of the questionnaire was sent to all fellows (where possible to the new address traced) who did not respond within 8 weeks after the first mailing or whose first copy was returned because of invalid addresses. This notwithstanding no valid addresses could be traced for at least 16 percent of the fellows.

While the questionnaires for the fellows and the supervisors were provided only in English, the questionnaire for the administrators was translated into seven out of nine official EC languages of the time the fellows were awarded support (no translation into Greek and Danish). The questionnaires were mailed by the Centre for Research on Higher Education and Work with an accompanying letter asking for cooperation signed by Mr. De Nettancourt, the Director General of DG XII. The mailing procedures undertaken were as follows.

- Early in June 1995, all 3,853 fellows and 3,083 supervisors were sent a questionnaire and an accompanying letter.
- Eight weeks later, at the beginning of August 1995, all fellows and supervisors who had not responded by that time received a reminder letter and another copy of the questionnaire.
- Because of delays in the translation of the questionnaire for administrators, the first mailing was possible not earlier than in April 1996. All administrators at the host institutions which were mentioned in the databases of DG XII were sent a questionnaire usually in their native language. If no appropriate language version was available, e.g. for Greek administrators, a copy each of the English, French and German version of the questionnaire was provided. All administrators who did not respond until mid-June 1996 were sent a reminder letter and a new copy of the questionnaire.

By the end of February 1996, 1,984 fellows returned the completed questionnaire to the Centre for Research on Higher Education and Work at the University of Kassel. Further 10 questionnaires were returned but not completed. As 624 questionnaires were returned with-

out response because of invalid addresses and no further address, i.e. a permanent address or a more recent address provided by the supervisor could be made available, we conclude that at most 3,228 fellows received the questionnaire. Thus, the return rate was 62 percent. Altogether, 52 percent of fellows actually going abroad responded.

As Table 1 shows, the distribution of EC research fellows providing responses differed only moderately according to the home country of the fellows. Also regarding the country of host institution, the discipline or the type of the research project, no substantial differences can be observed between the total population of EC fellows and those responding to the questionnaire. Altogether, we assume that the slight over-representations and under-representations of respondents as regards the various criteria can be considered as low and should not lead to any substantial bias of major findings.

Table 1
Representation of EC Research Fellows in the Survey and Return Rate by Home Country

Home country	A All EC fellows		B Valid addresses		C Responses provided		Representation ratio	Return rate
	Number	%	Number	%	Number	%	(C:A)	(C:B)
AT	13	0.3	12	0.4	6	0.3	46.2	50.0
BE	215	5.6	178	5.5	103	5.2	47.9	57.9
CH	5	0.1	3	0.1	3	0.2	60.0	100.0
DE	625	16.2	528	16.4	329	16.6	52.6	62.3
DK	67	1.7	53	1.6	33	1.7	49.3	62.3
ES	550	14.3	493	15.3	324	16.3	58.9	65.7
FI	7	0.2	5	0.2	5	0.3	71.4	100.0
FR	602	15.6	439	13.6	275	13.9	45.7	62.6
GB	278	7.2	219	6.8	116	5.8	41.7	53.0
GR	385	10.0	330	10.2	208	10.5	54.0	63.0
IE	123	3.2	108	3.3	65	3.3	52.8	60.2
IS	1	0.0	1	0.0	1	0.1	100.0	100.0
IT	532	13.8	482	14.9	303	15.3	60.0	62.9
LU	8	0.2	5	0.2	5	0.3	62.5	100.0
NL	216	5.6	184	5.7	107	5.4	49.5	58.2
NO	5	0.1	5	0.2	5	0.3	100.0	100.0
PT	202	5.2	165	5.1	84	4.2	41.2	50.9
SE	18	0.5	17	0.5	12	0.6	66.7	70.6
Total	3,852[1)]	100.0	3,228	100.0	1,984	100.0	51.5	61.5

1) One EC research fellow's home country could not be identified.

Of the 3,083 supervisors addressed by the survey, 106 who were responsible for 186 fellows could not be reached because they were not longer active in the former host laboratory or the address of the host laboratory was invalid. Of the remaining 2,977 supervisors, 2,121 completed the questionnaires which they received for each EC fellow, i.e. 71 percent. Altogether, the supervisors completed questionnaires for 2,526 fellows which corresponds to 66 percent of all fellows of the target population. Taking only into account the questionnaires probably received by supervisors, i.e. excluding questionnaires sent to supervisors which were retired, changed employment or could not be reached because of invalid addresses, the return rate was 69 percent.

In about 1,400 cases, both the fellow and his/her supervisor returned the completed questionnaires. In all other cases either the fellow responded but not the corresponding supervisor or vice versa.

A comparison of the fellows for which information was provided by the supervisors with the total population shows only very small differences according to the country of host institution (see Table 2). Also no significant differences can be observed as regards the other standard criteria. Thus, we assume that the information provided by supervisors about their fellows is statistically representative for all individual EC fellows supported by the European Commission between 1987 and 1994.

Table 2
Representation of Supervisors' Responses and Return Rate by Country of Host Institution/Laboratory

Host country	A All EC fellows		B Valid Addresses of supervisors		C Responses provided by supervisors		Representation ratio	Return rate
	Number	%	Number	%	Number	%	(C:A)	(C:B)
AT	3	0.1	3	0.1	3	0.1	100.0	100.0
BE	310	8.0	292	8.0	210	8.3	67.7	71.9
CH	93	2.4	89	2.4	66	2.6	71.0	74.2
DE	367	9.5	330	9.0	228	9.0	62.1	69.1
DK	95	2.5	87	2.4	66	2.6	69.5	75.9
ES	121	3.1	118	3.2	91	3.6	75.2	77.1
FI	7	0.2	7	0.2	6	0.2	85.7	85.7
FR	934	24.2	895	24.4	605	24.0	64.8	67.6
GB	1,226	31.8	1,167	31.8	803	31.8	65.5	68.8
GR	28	0.7	25	0.7	16	0.6	57.1	64.0
IE	46	1.2	46	1.3	31	1.2	67.4	67.4
IT	316	8.2	311	8.5	176	7.0	55.7	56.6
NL	248	6.4	239	6.5	183	7.3	73.8	76.6
NO	6	0.2	5	0.1	3	0.1	50.0	60.0
PT	34	0.9	34	0.9	19	0.8	55.9	55.9
SE	19	0.5	19	0.5	17	0.7	89.5	89.5
Total	3,853	100.0	3,667	100.0	2,523[1)]	100.0	65.5	68.8

1) Three questionnaires were returned by supervisors for whom the host country could not be identified.

Of the 2,347 administrators at the host institutions named as responsible for the EC fellows in the respective files, 700 returned the completed questionnaire until the end of September 1996. 120 could not be reached, because they had already terminated their employment at the respective institution. A further 21 explicitly refused to respond and 75 informed the research team that they had forwarded the questionnaire to the central administration of the institution. The response rate, thus was 30 percent of the administrators possibly reached. One should bear in mind, though, that the responsibilities in the administration change over time and administrative responsibility often do not rest in the individual departments named in the files, but rather on a higher institutional level. Actually, the 700 administrators responding represented altogether more than half of the institutions hosting EC fellows, and, as Table 3 shows, the total number of fellows hosted in these institutions was 61 percent of the target group of fellows of this survey.

A comparison of the fellows for which information was provided by the administrators with the total population shows only few differences according to the country of host institution. However, we note a slight over-representation of responses from British host laboratories and an under-representation from French institutions.

Table 3
Representation of EC Research Fellows in the Questionnaires Completed by Administrators and Return Rate by Country of Host Institution/Laboratory

Host country	A All EC fellows		C Fellows at institutions of administrators responding		Representation ratio
	Number	%	Number	%	(C:A)
AT	3	0.1	2	0.1	66.7
BE	310	8.0	226	9.6	72.9
CH	93	2.4	78	3.3	83.9
DE	367	9.5	245	10.4	66.8
DK	95	2.5	70	3.0	73.7
ES	121	3.1	48	2.0	39.7
FI	7	0.2	1	0.0	14.3
FR	934	24.2	406	17.3	43.5
GB	1,226	31.8	860	36.6	65.7
GR	28	0.7	17	0.7	60.7
IE	46	1.2	33	1.4	71.7
IT	316	8.2	216	9.2	68.4
NL	248	6.4	123	5.2	49.6
NO	6	0.2	2	0.1	33.3
PT	34	0.9	9	0.4	26.5
SE	19	0.5	13	0.6	68.4
Total	3,853	100.0	2,349	100.0	61.0

3. Profile of the EU Training Fellowship Programmes and the Participants

3.1 Proposals, Awards, and Rejections

Between 1987 and 1993 a continuous increase can be observed in the number of proposals for individual fellowships submitted to the European Commission in the framework of RTD Programmes (see Chart 2). While the number of proposals was only about 560 in 1987, it was almost twice as high in 1988. In the subsequent three years (1989 - 1991) it increased only slightly from 1,060 to 1,436. Since 1992, the year of the implementation of the Human Capital and Mobility Programme (HCM), a significant increase of more than 1,000 proposals for individual fellowships could be observed in each year. The respective number was 2,516 in 1992 and 3,934 in 1993. Altogether, more than 11,500 proposals for individual fellowships were submitted to the Commission between 1987 and 1993 by researchers aiming to spend a period abroad in a member state of the EC or a country of the European Free-Trade Association (EFTA).

The period of observation of this study covers the second (1987 - 1991) and the third RTD framework programmes (1991 - 1994) of the European Communities. During this time-span, fellowships were offered by more than 70 individual, mostly sectoral research programmes. However, in most of these programmes only a few proposals for individual fellowships were submitted.

Table 4
Proposals Submitted to Individual EC Programmes, by Year of Proposal (percent)

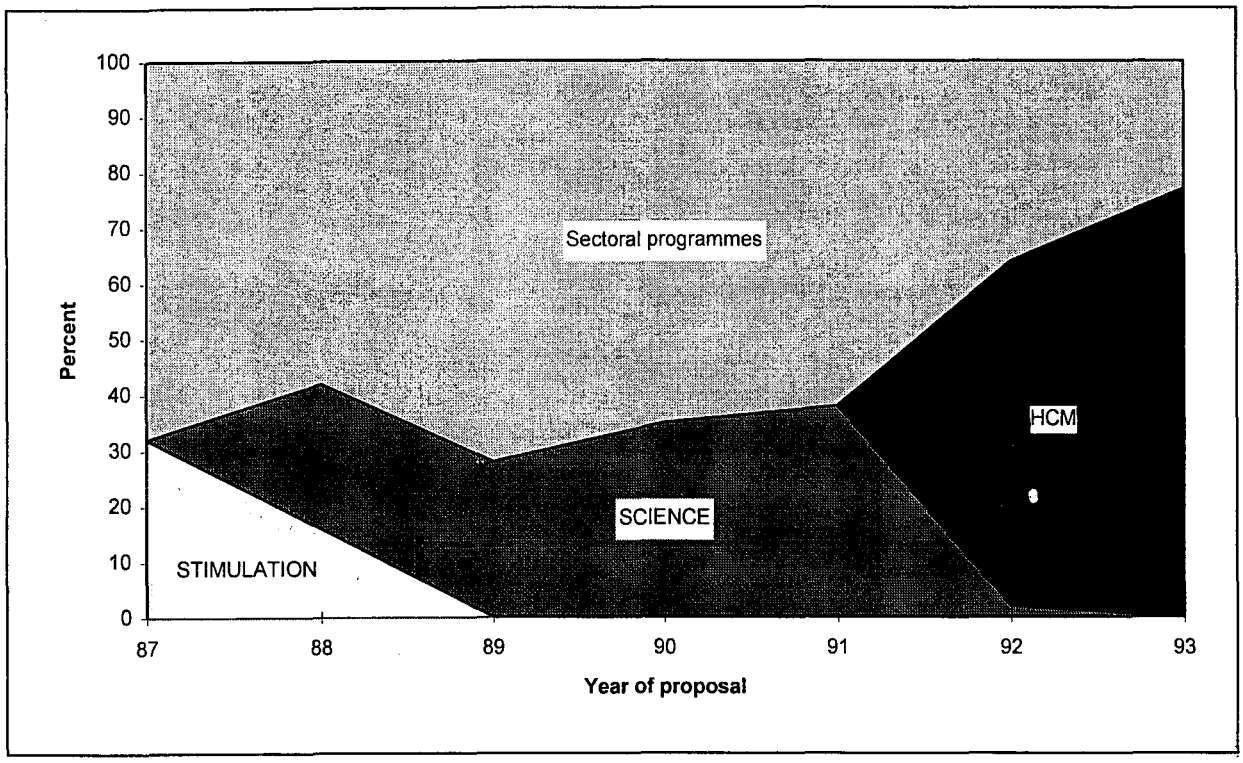
	Year of proposal							Total
	'87	'88	'89	'90	'91	'92	'93	
STIMULATION	32	16	0	0	0	0	0	3
SCIENCE	0	26	28	35	38	2	0	13
HUMAN CAPITAL AND MOBILITY	0	0	0	0	0	62	77	39
BIOTECH	26	24	26	19	3	9	4	11
BRIDGE	0	0	0	0	17	0	0	2
Other sectoral programmes	42	34	46	46	42	27	19	31
Total	100	100	100	100	100	100	100	100
(n)	(560)	(1,004)	(1,060)	(1,225)	(1,436)	(2,516)	(3,934)	(11,735)

Source: Fellow database 1987-1993

Prior to the establishment of HUMAN CAPITAL AND MOBILITY, about one third of the proposals were submitted for fellowships in the framework programmes covering various disciplines, i.e. the STIMULATION Programme and its successors SCIENCE. About two-thirds were submitted to sectoral programmes. As Table 4 shows, BIOTECH was most frequently addressed between 1987 and 1990, and BRIDGE in 1991. Other programmes were represented each by less than 10 percent of the proposals, most of them by even less than one percent. Since 1992, most proposals referred to HUMAN CAPITAL AND MOBILITY, and the

number of proposals for sectoral programmes declined to 36 percent in 1992 and eventually 23 percent in 1993.

Chart 1
Proposals Submitted to Individual EC Programmes, by Year of Proposal (percent)



Source: Fellow database 1987 - 1993

The success rate of proposals for individual fellowships submitted to the European Commission was 37 percent on average. As, however, the number of proposals grew more rapidly than that of fellowships actually approved (the latter increased from 313 in 1987 to 1,230 in 1993), the success rate decreased continuously. While in 1987 more than half of the proposals for fellowships were approved, the respective proportion was only about one third in 1993.

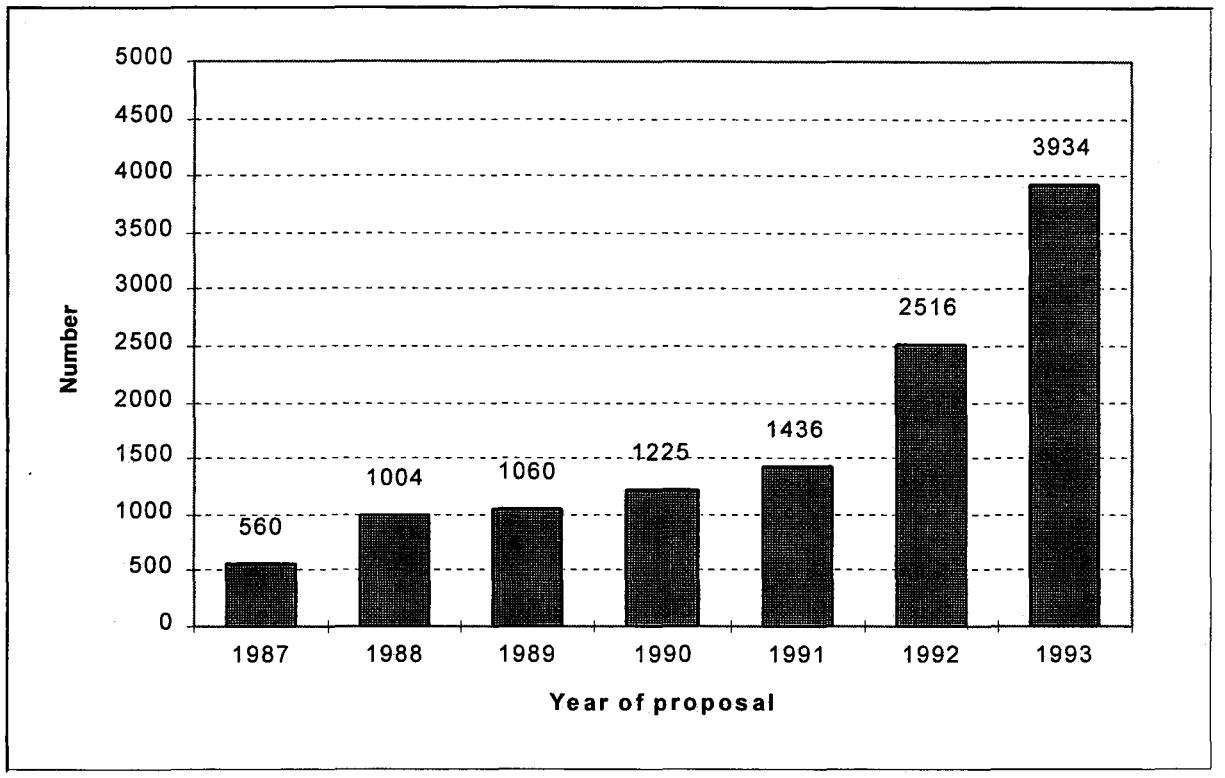
As regards HCM and its predecessors, we observe a dramatic decrease in the proportion of proposals approved for support. While during the STIMULATION Programme 63 percent of the proposals were awarded support, the respective proportion decreased to 35 percent in the SCIENCE programme and 33 percent in HCM. The success rate in the other sectoral programmes decreased also from 45 percent in 1987 to 32 percent in 1993.

One tenth of the fellows approved by the European Commission decided to reject the fellowship for various reasons. As compared to the 24 percent of applicants who - according to the survey conducted in 1989 - declined the award in previous years, a proportion of only 10 percent of rejections looks very favourable. However, the decreased proportion of rejections in the second and third RTD framework programme might be not only due to an increased attractiveness of the EC fellowships as such. In addition, other options, for example fellowships in the United States or academic staff positions, might have decreased.

During the period of observation, the proportion of rejections decreased slightly from 9 percent in 1987 to 6 percent in 1990, and thereafter increased again up to 12 percent in 1993 (see Chart 3). In contrast to the prior study, no rejection survey was conducted this time. Therefore, we do not know the causes for the decline. It is worth noting, though, that the

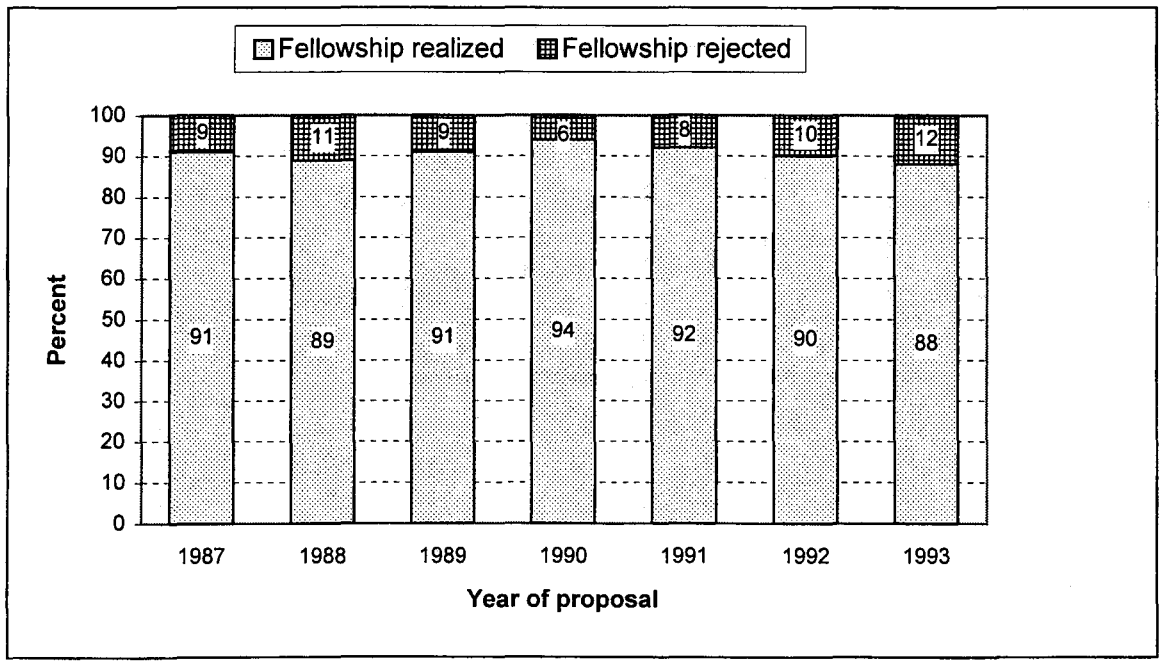
proportion of post-doctoral fellowships declined is clearly higher than that of doctoral fellowships.

Chart 2
Number of Proposals, by Year of Proposal



Source: Fellow database 1987 - 1993

Chart 3
Rejection of the Fellowship, by Year of Proposal



Source: Fellow database 1987 - 1993

3.2 Profile of the Fellowships and the Fellows

The subsequent overview on the fellowships and the fellows is based, as far as possible, on information gathered from the files of the European Commission. Thus, a complete picture based on all fellows can be provided in various respects. However, the files covered only limited information required for administrative purposes: nationality of fellows, host country, discipline and type of fellowship, year of start, duration of the fellowship, gender and age of the fellows. Therefore, this section is supplemented with information provided by fellows and supervisors in the respective survey questionnaires.

Start and duration of the fellowships

Of the fellows addressed in the survey, about one third actually began the fellowship period in the year of the application, 62 percent in the subsequent year and only 3 percent in the second or third year after the application. As Table 5 shows, the proportion of those starting the fellowship in the year of application increased, though not continuously, from 37 percent in 1987 to 48 percent in 1991. It declined to less than 30 percent since the introduction of the HCM programme.

Table 5
Year of Start of the EC Fellowship, by Year of Proposal (percent)

	Year of proposal							Total
Year of start	'87	'88	'89	'90	'91	'92	'93	
87	37	0	0	0	0	0	0	3
88	60	40	0	0	0	0	0	9
89	3	55	34	0	0	0	0	10
90	0	4	63	43	0	0	0	12
91	0	2	3	56	48	0	0	13
92	0	0	0	1	50	24	2	11
93	0	0	0	0	2	73	28	22
94	0	0	0	0	0	3	70	19
95	0	0	0	0	0	0	4	1
Total	100	100	100	100	100	100	100	100
(n)	(280)	(463)	(366)	(481)	(462)	(754)	(1,033)	(3,839)

Source: Fellow database 1987-1993

Seven percent of the fellows were awarded support for a research training period of 1-6 months. A further 20 percent were granted 7-12 months (most of them about one year), about sixty percent 13-24 months (the majority of them almost exactly two years), and 16 percent more than 24 months, among them three percent more than 3 years (see Table 6).

According to the previous survey, the average duration of EC fellowships was less than one year for those going abroad between the mid-sixties and mid-eighties (cf. Teichler et al., 1990). Those surveyed recently, actually were awarded a fellowship of about 20.8 months on average in the following years. The average duration of fellowships was almost constant between 1987 and 1993. The spread of duration, however, changed in recent years. Up to 1991, the proportion of those awarded support for at most one year on the one hand and on

the other those awarded support for more than two years was relatively large. Thereafter, a fellowship of two years became the clearly dominant pattern.

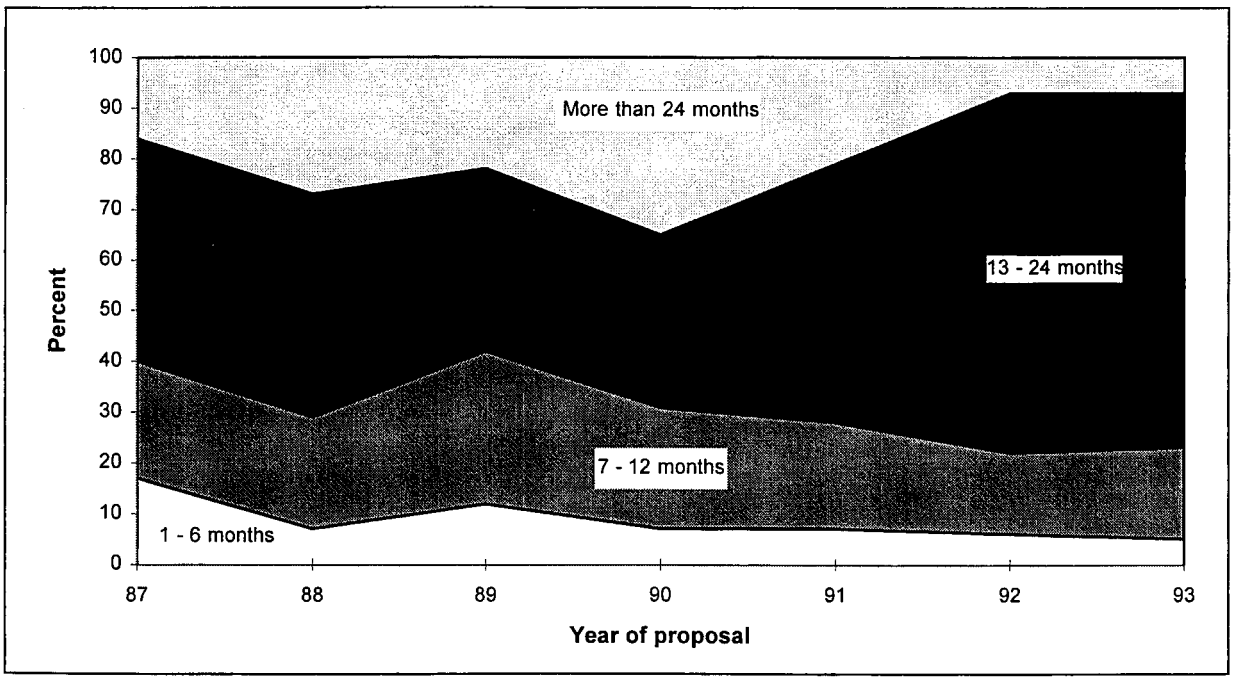
In most disciplines, the average actual duration of the fellowship periods is very similar. Only in life sciences, the average duration was with 19 months about 3 months shorter than in most of the other disciplines.

Table 6
Actual Duration of the EC Fellowship Period, by Year of Proposal (percent)

	Year of proposal							Total
Months	'87	'88	'89	'90	"91	'92	'93	
1 - 6	17	7	12	7	7	6	5	7
7 - 12	23	22	29	24	22	16	18	20
13 - 24	44	44	36	34	51	71	70	58
More than 24	16	27	22	35	22	7	7	16
Total	100	100	100	100	100	100	100	100
(n)	(82)	(178)	(138)	(228)	(227)	(421)	(693)	(1,967)
Average months actually spent on fellowship	18.5	21.7	19.5	22.8	21.4	20.2	20.7	20.8

Question 1.2.3: When were/are you on an EC fellowship?
Source: Survey on fellows

Chart 4
Actual Duration of the EC Fellowship Period, by Year of Proposal (percent)



Source: Fellow database 1987 - 1993

Discipline of the fellowships and prior field of study

About 40 percent of the fellowships were awarded in the area of life sciences. A further 19 percent were granted in physics, 12 percent in chemistry, 10 percent in engineering, 9 percent in earth sciences and about 6 percent in economics and other humanities and social sciences fields, and 5 percent in mathematics. As Table 7 and Chart 5 show, the proportion of fellowships awarded in chemistry, earth sciences, mathematics, and physics were relatively constant over the years. Since 1989, fellowships in economics etc. were supported by the European Commission. An increase of the proportion of fellowships in this areas from 4 to 10 percent within five years shows not only the growing interest on the part of the researchers but also the growing attention of the Commission regarding the socio-economic aspects of the European Union. The proportion of engineering fellowships decreased from 13 percent in 1987 to 4 percent in 1991 and increased in the subsequent two years to about 15 percent. Life sciences was with about 40 to 50 percent of the fellowships strongly represented between 1987 and 1992 and decreased afterwards to 29 percent in 1993. However, life sciences still remains the most frequently supported discipline in the framework of European research fellowships.

Table 7
Discipline of the Fellowship, by Year of Proposal (percent)

	Year of proposal							Total
Discipline	'87	'88	'89	'90	'91	'92	'93	
CHE	13	10	9	12	15	15	12	12
EAR	7	8	5	10	10	8	10	9
ECO	0	0	4	4	9	5	10	6
ENG	13	11	10	10	4	8	15	10
LIF	41	47	49	38	47	38	28	39
MAT	5	5	4	4	2	6	6	5
PHY	21	18	19	23	13	20	20	19
Total	100	100	100	100	100	100	100	100
(n)	(279)	(463)	(363)	(477)	(462)	(754)	(1,033)	(3,831)

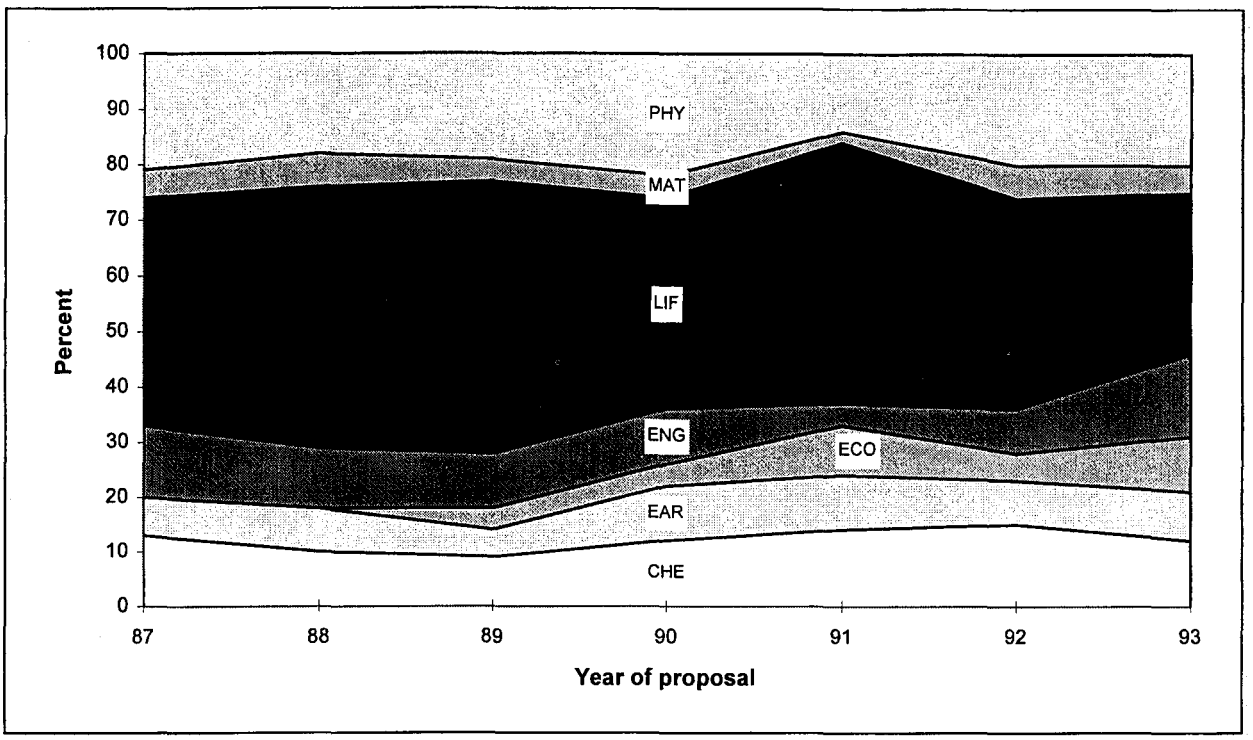
Source: Fellow database 1987-1993

CHE = Chemistry
EAR = Earth sciences
ECO = Economical, social and human sciences
ENG = Engineering sciences
LIF = Life sciences
MAT = Mathematics and information sciences
PHY = Physics

According to the information provided by the fellows in their responses to the questionnaire survey, about three quarters carried out research supported by the European fellowship in the subject area in which they were awarded their academic degree. The respective proportions were highest in economics etc. (89 percent), life sciences (88 percent) and earth sciences (83 percent). On the other hand, fellows who had graduated in engineering (52 percent) or chemistry (59 percent) less often carried out research supported by the fellowship in the area they graduated from. This does not mean, however, that 25 percent of the fellows moved into another discipline, because the classification of fields of graduation does not exactly correspond to that of fellowship. Some fellows might have remained in their initial do-

main even though the programme they are involved in is viewed as belonging to another area.

Chart 5
Discipline of the Fellowship, by Year of Proposal (percent)



Source: Fellow database 1987 - 1993

Home country and host country

The eligibility of researchers to be awarded an EC fellowship is defined by the criteria of his/her nationality and the eligibility requirement for mobility. As regards the first criteria, applicants must be nationals of a Community Member State or an associated state of the European Economic Area or a person resident in one of these countries. To fulfil the mobility requirement, the applicant must be nationals of a country other than that in which the laboratory is established and must not have carried out his/her normal activity in that country for more than two years prior to the date of submission of the application. The mobility requirement does not hold for candidates who apply for a fellowship in one of the Joint Research Centres (JRC) in Geel, Ispra, Karlsruhe, Petten or in a Joint Undertaking.

For convenience sake, we talk of "British", "French", "Spanish" fellows etc. in the subsequent text if we refer to the home country, i.e. either the country of origin of fellows from EC or EFTA countries or the country of residence. We do so, because this reflects the eligibility criteria for the award of an EC research training fellowship. In fact, the so defined home country is identical with the nationality of more than 99 percent of the fellows. Only 14 fellows who awarded an EC fellowship were not nationals of an EC or EFTA country. A few fellows were awarded support for a research period in their country of origin although the rules for an exception of the mobility requirement were not fulfilled. We assume that in these cases the fellows lived permanently outside their country of origin and that the country of residence prior to the fellowship was counted as the eligible home country in the award decision.

About 70 percent of the fellows awarded support in the framework of RTD programmes of the European Community between 1987 and 1993 were from five countries: Germany (16

Table 8
Home Country and Host Country of Fellows (absolute numbers)

	Host country																Total
	AT	BE	CH	DE	DK	ES	FI	FR	GB	GR	IE	IT	NL	NO	PT	SE	
AT	0	0	1	1	0	1	0	3	4	0	0	2	1	0	0	0	13
BE	0	3	4	22	2	6	2	97	44	0	2	17	11	0	4	1	215
CH	0	0	0	0	0	0	0	2	1	0	0	1	1	0	0	0	5
DE	1	41	19	2	12	23	2	207	200	4	12	57	39	3	2	0	624
DK	0	3	3	7	0	1	0	18	12	0	1	13	7	0	0	0	65
ES	0	37	8	74	13	0	1	126	196	2	5	39	41	0	4	3	549
FI	0	0	0	3	0	0	0	1	1	0	0	0	2	0	0	0	7
FR	0	93	15	74	13	37	0	1	241	8	8	57	42	2	6	5	602
GB	0	12	11	34	12	16	1	95	3	7	9	43	21	0	9	2	275
GR	1	38	3	34	12	6	0	102	139	0	3	24	19	0	1	1	383
IE	0	5	4	12	1	3	0	28	42	1	0	11	13	0	3	0	123
IS	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
IT	1	41	15	66	21	13	1	152	163	3	1	21	31	1	0	1	531
LU	0	1	1	1	0	0	0	3	1	0	0	1	0	0	0	0	8
NL	0	21	5	23	3	10	0	59	57	2	5	20	3	0	5	1	214
NO	0	0	0	0	1	1	0	1	2	0	0	0	0	0	0	0	5
PT	0	14	4	12	4	2	0	34	105	0	0	5	16	0	0	4	200
SE	0	1	0	2	1	2	0	1	9	0	0	1	0	0	0	1	18
Total	3	310	93	367	95	121	7	930	1,221	27	46	312	247	6	34	19	3,838

Source: Fellow database 1987-1993

percent), France (16 percent), Spain (14 percent), Italy (14 percent), and Greece (10 percent). Only seven percent of the fellows were from the United Kingdom and less than two percent of the fellows from the EFTA countries (see Table 8).

Some changes in the proportion of fellows from the individual EC Member States and EFTA countries could be observed over time. As Table 9 shows, the proportion of fellows from Portugal and Greece decreased significantly between 1987 and 1991. On the other hand, the most visible increase of fellows could be found in the case of Italy and Spain.

Two countries clearly stood out in hosting fellows over the whole period of consideration:
- the United Kingdom which hosted about one third of the fellows; and
- France which hosted about one quarter.

Between five and ten percent of the fellows were hosted each by Germany (10 percent), Belgium (8 percent), Italy (8 percent), and the Netherlands (6 percent). Most of the remaining countries hosted less than one percent of the fellows each (see Table 10). In looking at the ratio of fellows received to fellows sent two countries clearly stood out:
- Switzerland received about twenty times as many fellows as were sent abroad (notably due to fellows at CERN) and
- the United Kingdom with a respective ratio of 4.5 : 1 fellows hosted and sent.

Table 9
Home Country of Fellows, by Year of Proposal (percent)

	Year of proposal							Total
	87	88	89	90	91	92	93	
AT	0	0	0	0	1	0	0	0
BE	9	6	7	8	5	4	5	6
CH	0	0	0	0	0	0	0	0
DE	14	13	16	19	17	14	18	16
DK	1	2	1	2	2	2	1	2
ES	10	16	10	10	10	24	14	14
FI	0	0	0	0	0	0	0	0
FR	17	17	16	16	19	15	14	16
GB	6	8	6	7	7	6	8	7
GR	15	11	9	9	9	9	10	10
IE	3	2	2	2	4	4	4	3
IS	0	0	0	0	0	0	0	0
IT	9	10	16	14	16	15	14	14
LU	1	0	0	0	0	0	0	0
NL	3	5	5	6	7	5	6	6
NO	0	0	0	0	0	0	0	0
PT	13	9	12	5	3	2	3	5
SE	0	0	0	0	0	0	1	0
Total	100	100	100	100	100	100	100	100
(n)	(280)	(462)	(366)	(481)	(462)	(754)	(1,033)	(3,838)

Source: Fellow database 1987-1993

Other countries receiving more fellows than sending abroad were France, Belgium, Norway, Denmark, the Netherlands, and Sweden. On the other hand, Greece, Portugal, Spain, Austria, and Ireland sent more than twice as many fellows abroad than they received. Also Germany and Italy sent clearly more students than they received.

Familiarity with the host country language obviously played a role for fellows from Belgium and France in the choice of the host country. The proportion of about 44 percent of Belgian fellows going to France and 15 percent of French fellows spending a period abroad in Belgium was clearly above the average of fellows hosted by these two countries (24 and 8 percent). On the other hand, the mobility between Ireland and the United Kingdom was obviously not driven by the language factor. The proportions of Irish fellows going to the United Kingdom or British fellows spending a research period in Ireland differed not significantly from the average proportion of fellows from other countries hosted by Ireland and the United Kingdom.

The United Kingdom was most often chosen as host country by fellows from Portugal (52 percent), Sweden (50 percent), and from France (39 percent). The proportions of fellows from eligible countries spending a period of research in Germany were more or less similar to the average of about 10 percent. As already mentioned, France was often the host country for Belgian fellows but also for fellows from the United Kingdom (35 percent) and Germany (33 percent).

Table 10
Country of Host Laboratory of Fellows, by Year of Proposal (percent)

	Year of proposal							Total
	'87	'88	'89	'90	'91	'92	'93	
AT	0	0	0	0	0	0	0	0
BE	11	8	9	10	9	7	6	8
CH	0	3	3	2	3	3	2	2
DE	8	12	10	10	8	8	11	10
DK	1	2	2	4	3	3	2	2
ES	1	2	2	2	2	4	5	3
FI	0	0	0	0	0	0	0	0
FR	26	24	24	24	22	26	24	24
GB	33	28	29	29	36	35	31	32
GR	2	1	1	1	1	1	1	1
IE	1	0	1	2	2	1	1	1
IT	10	10	10	11	6	5	8	8
NL	6	9	8	5	6	6	7	6
NO	0	0	0	0	0	0	0	0
PT	1	0	1	0	2	1	1	1
SE	0	0	1	0	0	1	1	0
Total	100	100	100	100	100	100	100	100
(n)	(280)	(463)	(366)	(481)	(462)	(754)	(1,033)	(3,839)

Source: Fellow database 1987-1993

In earlier years, the high concentration of fellows going to a few countries reflected the large number of fellowships awarded to the four laboratories of the EC's Joint Research Centre. Until 1973, 85 percent of the fellows went to the JRC, and 77 percent during the mid-seventies. This proportion declined to 34 percent in the early eighties. During the period of consideration of this study, only five percent of the fellows undertook a period of research in one of the JRC, most of them in Ispra in Italy (see Table 11). About half of the fellows who spent a period abroad in Italy went to the Joint Research Centre in Ispra. One has to bear in mind, though, that this recent survey did not comprise "institutional fellowships".

The disciplinary profile of fellows from individual countries did not differ substantially from the general disciplinary profile of all fellowships. Exceptions of this general finding could be observed mostly in countries with small numbers of fellows, i.e. especially the EFTA countries. As regards the EU Member States with larger numbers of fellows, a few differences in the disciplinary profile of fellowships seem to be worth noting:

- research projects in life sciences were undertaken by about half of the fellows each from Spain and France;
- engineering projects were most frequent among fellows from Portugal (21 percent) and Greece (18 percent), and
- projects in physics, among fellows from Germany (27 percent), the United Kingdom and Italy (25 percent each).

Table 11
Changing Role Played by Joint Research Centres as Compared to Other Host Institutions for EC Fellows, by Year of Proposal (percent)

	Year of proposal							Total
	'87	'88	'89	'90	'91	'92	'93	
Ispra (Italy)	8	6	4	7	2	1	3	4
Other Italy	3	4	6	5	4	5	5	4
Karlsruhe (Germany)	0	1	0	0	0	0	1	0
Other Germany	7	12	10	10	8	8	10	9
Geel (Belgium)	0	1	1	0	0	0	1	1
Other Belgium	11	7	8	10	9	7	5	8
Petten (Netherlands)	0	2	1	0	0	0	0	0
Other Netherlands	5	7	7	4	6	6	7	6
Other countries	65	60	64	65	71	74	68	68
Total	100	100	100	100	100	100	100	100
(n)	(280)	(463)	(366)	(481)	(462)	(754)	(1,033)	(3,839)

Source: Fellow database 1987-1993

The disciplinary profile of fellows in the individual host countries could also be considered as similar in most cases. Only few differences can be found as regards physics and life sciences. While Switzerland (31 percent) and Ireland (28 percent) hosted more fellows in physics than any other country, life sciences was most often the subject of the research project for fellows spending a period abroad in the Netherlands and Portugal (about 50 percent each). By and large, no country clearly stood out in attracting fellows of a special discipline.

In analysing the relationship between country and duration of the fellowship period, we note only small differences in most cases. The average duration envisaged for the fellowship ranged from 18 months for Finnish fellows to 24 months for Swiss fellows. As regards countries with large numbers of fellows, the initial duration was highest for German (23 months) and lowest for French fellows (18 months on average).

Age, previous education, and type of fellowship

Some information was available about the level of the fellow's seniority at the time of application: their current age, the highest level of education, and the category of the fellowship awarded (student, post-graduate, post-doctoral and experienced researcher).

Thirteen percent were up to 25 years old during the year their fellowship began, 53 percent were 26-30 years, 26 percent 31-35 years and 9 percent older than 35 years. Actually the average age at the time the fellowship began was

- 25 years for student fellows,
- 27 years for post-graduate fellows,
- 31 years for post-doctoral fellows, and
- 37 years for experienced researchers.

About half of the fellows responding to the survey stated a doctorate as their highest level of education at the time of the application. A further 33 percent had completed a master's or similar advanced degree, 11 percent a bachelor's degree and a few fellows stated the completion of a short-cycle diploma of less than three years of higher education. Some differences in the level of education at the time of application can be observed by home country of the fellows. As Table 12 shows, the proportion of fellows with a bachelor's degree was highest in Ireland (37 percent), the United Kingdom (24 percent) and Portugal (22 percent). On the other hand, the completion of a doctorate was most often stated by fellows from Spain (76 percent) and France (68 percent).

A doctorate was also the most frequent level of prior education for fellows carrying out a research project in life sciences (63 percent), chemistry (61 percent) and physics (53 percent). Comparably low proportions in this respect can be observed in economics etc. (26 percent) and engineering (35 percent).

The naming of types of fellowships has changed over time, but in principle four levels existed throughout the period considered in this study: fellowships for students not yet having completed a university degree, a doctoral level for those having completed university degree corresponding a bachelor's or mostly a master's, a post-doctoral level for researchers having completed their doctorate, and a senior level for experienced researchers. Since 1992, the student level was not longer supported by the European Commission.

About half of the fellowships awarded between 1987 and 1993 were given to fellows on the post-doctoral level (see Table 13). Further 41 percent of the fellows were young researchers who hold a qualification equivalent to a master's or bachelor's issued by a university or establishment of equivalent level (doctoral level). Only one percent of the fellows were students and three percent experienced researchers, i.e. usually professors carrying out RTD projects in centres located in less-favoured regions to provide local staff training for young scientists or carrying out specific experiments using facilities or techniques unavailable in their country of origin.

It should be noted that eight percent of the fellows were supported by allocations provided by the European Commission to host institutions to enable them to take scientists from another eligible country to reinforce a team for a given period of time. However, this kind of support was only provided until 1990 and has clearly to be distinguished from "institutional fellowship" supported since 1992. About half of the fellows awarded support from allocations

Table 12
Fellows' Highest Level of Education at the Time of Application, by Home Country* (percent)

	Home country																	Total
	AT	BE	CH	DE	DK	ES	FI	FR	GB	GR	IE	IT	L	NL	NO	PT	SE	
Short-cycle diploma	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bachelor's or similar degree	0	9	0	5	6	5	0	1	24	18	37	16	0	8	0	22	0	11
Master's or similar advanced degree	33	40	33	47	66	15	40	27	15	34	18	41	40	35	40	53	33	33
Doctorate	67	49	67	41	28	76	40	68	61	48	45	36	60	57	40	21	58	52
Other	0	2	0	6	0	3	20	4	0	1	0	7	0	1	20	4	8	4
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
(n)	(6)	(100)	(3)	(323)	(32)	(317)	(5)	(267)	(109)	(204)	(65)	(296)	(5)	(104)	(5)	(81)	(12)	(1,935)

* Excluding Iceland (one respondent only).

Question 1.1.4: Please state your highest level of education at the time you applied for the fellowship and now. Please also state the country(ies) in which the degree was awarded.

Source: Survey on fellows

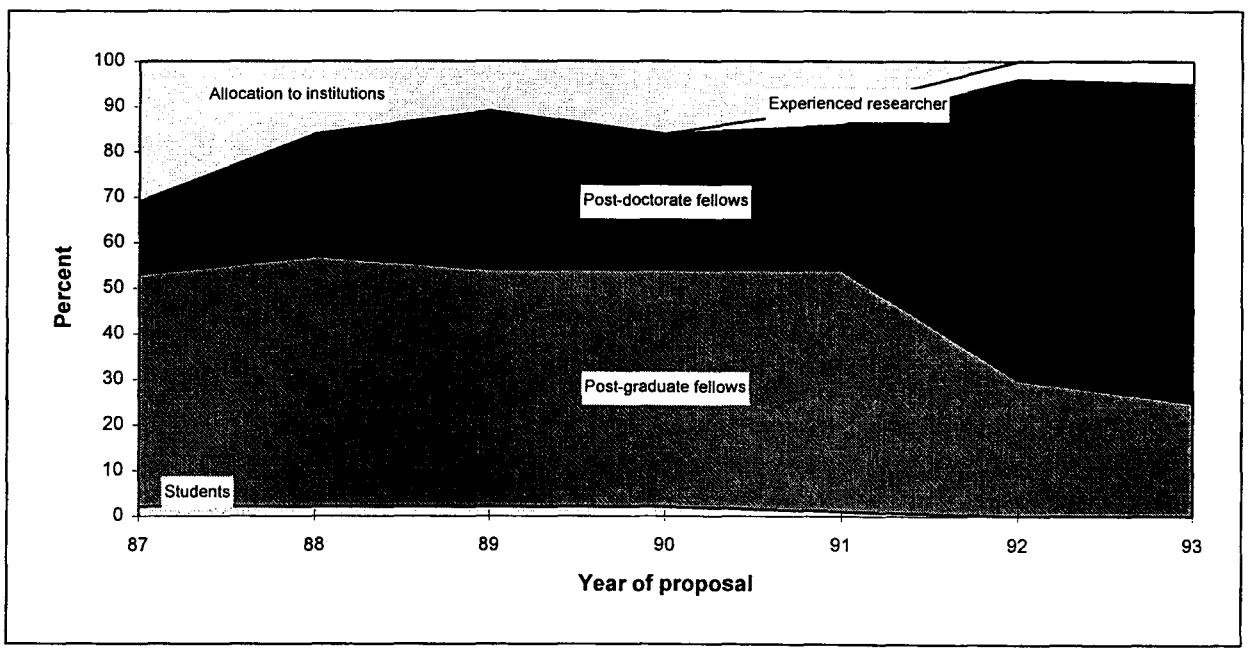
institutions had already completed their doctoral degree at the time the fellowship started and the other half hold a university degree. In further analysis, these fellows will be counted in accordance to the level of education prior to the fellowship either as post-graduate or as post-doctoral fellows.

Table 13
Type of Fellowship, by Year of Proposal (percent)

	Year of proposal							Total
	87	88	89	90	91	92	93	
Student	2	2	2	2	1	0	0	1
Post-graduate	51	54	51	52	53	30	26	41
Post-doctorate	16	27	35	30	32	65	70	47
Experienced researcher	0	0	0	0	4	4	4	3
Allocation to institutions	31	16	11	16	10	0	0	8
Total	100	100	100	100	100	100	100	100
(n)	(280)	(463)	(366)	(481)	(462)	(754)	(1,033)	(3,839)

Source: Fellow database 1987-1993

Chart 6
Type of Fellowship, by Year of Proposal (percent)



Source: Fellow database 1987 - 1993

Substantial changes in the award of fellowships to the various categories could be observed over time (see Table 13 and Chart 6). According to the fellow database, the proportion of post-doctoral fellowships increased from 16 percent in 1987 to 70 percent in 1993. Conversely the proportion of graduate fellowships decreased from 51 percent to 26 percent and

the research grants provided to institutions from 31 percent in 1987 to 10 percent in 1991, the last year in which this kind of support was provided.

If we ignore the countries with only a small number of EC fellows, the highest proportion of post-doctoral fellows can be observed among the Spanish (61 percent), French and British fellows (57 percent each). Countries with the lowest proportion of post-doctoral fellows were Portugal (14 percent) and Denmark (32 percent).

The few students supported between 1987 and 1993 were granted fellowships lasting on average about 10.1 months, whereas the respective period was 24.1 months for post-graduate fellows and 18.9 months for post-doctoral fellows. Experienced researchers were awarded an EC research training fellowship for an average duration of 10.4 months. Fellowships for a period longer than two years were granted almost exclusively to fellows on a post-graduate level (see Table 14).

Table 14
Actual Duration of the EC Fellowship Period, by Type of Fellowship (percent)

	Type of fellowship			Total
Months	Junior/ post-grad.	Senior/ post-doct.	Experienced researcher	
Up to 6	4	7	42	7
7 - 12	13	24	46	20
13 - 24	53	65	8	58
25 - 36	24	4	2	12
37 and more	5	0	3	3
Total	100	100	100	100
(n)	(830)	(1,060)	(65)	(1,955)
Average actual duration	24.1	18.9	10.4	20.8

Question 1.2.3: When were/are you on an EC fellowship?

Source: Survey on fellows

Gender

About one third of the fellows successfully applying for an individual EC fellowship between 1987 and 1993 were female. As compared to earlier years, the proportion of female fellows has doubled (cf. Teichler, U. et al., 1990, p. 33). However, there are substantial differences according to home country: if we exclude those countries with small numbers of fellows, the quota of women is smallest among Dutch (12 percent), British (21 percent), German and Danish (22 percent each) fellows. On the other hand, the quota is above average in most of the Mediterranean countries. These country differences can only partly be explained by the composition of fellows according to discipline. Especially in some of the Mediterranean countries, the proportion of fellows in life sciences was especially high. Altogether, the ratios of female fellows were

- 42 percent in life sciences;
- 38 percent in earth sciences;
- 34 percent in chemistry;
- 32 percent in economics etc.;

- 22 percent in mathematics;
- 19 percent in engineering; and
- 18 percent in physics.

No differences between male and female fellows can be observed as regards the type of fellowship awarded. The proportion of women awarded EC support as students, post-graduates, post-doctorals and experienced researchers was more or less identical.

Experiences abroad prior to the EC fellowship

The majority of the EC fellows had already lived abroad for a period of at least two months prior to the start of the EC supported fellowship. About two thirds reported that they lived abroad as pupil, student or as graduate. Some of the fellows went abroad several times and on different stages of their educational career. Altogether,

- 6 percent lived abroad for a significant period (at least 2 months) while in school;
- 25 percent as students;
- 24 percent for doctoral study/thesis;
- 20 percent for post-doctoral research;
- 2 percent carried out a work placement;
- 4 percent were employed; and
- 4 percent lived abroad for other reasons.

The proportion of fellows with international experiences could be considered as very high indicates a high self selectivity of persons applying for an EC fellowship.

In analysing the relationships between home country and prior international experiences, we note that fellows from France (45 percent), Portugal (60 percent) and the Netherlands (61 percent) least often stayed abroad prior to the EC fellowship (see Table 15). On the other hand, fellows from Greece and Ireland most often reported about international experiences (about 80 percent each).

While 61 percent of post-graduate fellows lived abroad prior to the fellowship, the respective proportion was 69 percent among experienced researchers. The efforts undertaken by the European Community since the mid-eighties to foster student mobility obviously has contributed to the high proportion of graduates with international experiences. About 40 percent of the post-graduate fellows reported that they went abroad as students.

About one third of the fellows gathered prior experiences in the host country of the EC supported fellowship. Periods abroad in other than the EC or EFTA countries were reported by each fifth of the fellows. Most of them (about three quarters) lived for some period in the United States.

The duration of periods abroad prior to the EC fellowship was 26.7 months on average for those who had lived abroad. It was 22.1 months for post-graduate fellows, 29.4 months for post-doctoral fellows and 35.4 months for experienced researchers (see Table 16). While post-graduate fellows spent most time abroad while in school (5.9 months on average) or as students (8.6 months), post-doctoral fellows were named doctoral studies (11.4 months) and post-doctoral studies (8.6 months) most frequently in this respect. Experienced researchers mobile prior to the fellowship reported on average about one year of employment abroad.

The average duration of prior periods spent in the host country of their European fellowship was 7.1 months. It is interesting to note that post-graduate fellows lived on average for the longest time in the host country. A substantial proportion of these fellows obviously had chosen the host country of their study period abroad again for the EC supported research fellowship.

Table 15
Periods of at Least two Months Spent Abroad Prior to the EC Fellowship, by Home Country (percent)

	Home country																		Total
	AT	BE	CH	DE	DK	ES	FI	FR	GB	GR	IE	IS	IT	L	NL	NO	PT	SE	
None	50	41	0	36	34	37	40	55	39	18	23	0	33	0	39	0	40	25	36
While in school	33	7	0	9	9	4	20	8	5	4	5	0	4	0	6	0	12	8	6
As student	33	23	33	37	41	10	40	17	14	35	42	0	21	80	31	20	26	25	25
Doctoral study/ thesis	0	21	33	16	28	34	20	13	9	44	23	100	27	80	17	40	26	33	24
Post-doctoral research	17	13	67	19	6	25	0	13	30	23	18	0	23	40	14	40	5	25	20
Work placement	0	5	33	2	0	1	0	1	3	4	12	0	2	0	2	0	1	0	2
Employment	0	6	0	4	3	1	0	5	7	5	14	0	4	0	4	0	4	0	4
Other	0	3	0	4	0	2	0	4	7	1	0	0	5	0	3	0	7	0	4
Total	133	119	167	126	122	114	120	116	114	135	137	100	121	200	116	100	121	117	121
(n)	(6)	(100)	(3)	(325)	(32)	(319)	(5)	(269)	(109)	(203)	(65)	(1)	(299)	(5)	(105)	(5)	(81)	(12)	(1,944)

Question 1.1.5: Did you live abroad for a significant period of time (at least 2 months) before your EC fellowship?

Source: Survey on fellows

Table 16
Duration of Periods Spent Abroad Prior to the EC Fellowship, by Type of Fellowship
(mean of all fellows spending a period abroad)

	Type of fellowship			Total
	Junior/ post-grad.	Senior/ post-doct.	Experienced researcher	
While in school	5.9	3.5	1.6	4.4
As student	8.6	3.2	2.2	5.3
Doctoral study/thesis	3.7	11.4	10.4	8.3
Post-doctoral research	.8	8.6	9.3	5.5
Work placement	.5	.3	.0	.4
Employment	.9	1.4	11.6	1.5
Other activities	1.8	1.0	.3	1.3
Overall duration of prior periods abroad	22.1	29.4	35.4	26.7
Duration of prior periods in the host country	8.5	6.2	4.5	7.1
(n)	(495)	(682)	(44)	(1,221)

Question 1.1.5: Did you live abroad for a significant period of time (at least 2 months) before your EC fellowship?
Source: Survey on fellows

Family of the fellow

About one third of the fellows responding to the questionnaire lived together with a partner, spouse or children prior to the stay abroad. At that time, eight percent of the fellows had one child, five percent two children and one percent three or more children. As one might expect, the family situation varied strongly by the age of the respondents. While only 11 percent of the young fellows (up to 25 years) lived together with a partner prior to the fellowship, the respective proportion was 80 percent among fellows older than 40 years.

During the period abroad, a similar proportion of fellows as prior to the fellowship lived together with a partner and possibly with children. In other cases, fellows might have found new partners in the host country and lived together with them. The longer the period abroad lasted, the more likely fellows were accompanied by their partner or family. Obviously most partners accompanied the fellows in the host country.

3.3 The Host Institutions and Supervisors

With the help of a written questionnaire survey, persons in charge for the supervision of EC fellows at the host institutions were asked to provide some basic information about their institution and their biographical background. Also, the administrators responsible for administrative and financial matters of the fellowship were asked to inform about the institution and its administrative arrangements.

The information thus provided allow us to identify the institutional context in which the fellowships were carried out. The following analysis, however, will not focus on the individual host institution as such, but rather will describe the institutional issues in terms of fellows affected;

i.e. the main question will not be how many higher education institutions hosted fellows but how many fellows experienced certain institutional contexts. Therefore, responses by administrators and supervisors are weighted by the number of fellows in the target group they refer to.

Type of organisation

The vast majority of the fellows carried out the fellowship in public-sector institutions. According to the supervisors, as Table 17 shows,

- 58 percent of the fellows undertook a research period at a higher education institution;
- 29 percent at a public research institute;
- 6 percent at a private research institute;
- 6 percent at an international, intergovernmental organisation in the public sector; and
- 1 percent at another private organisation.

Following the information provided by the supervisors, only six percent of the fellows were employed in private research institutes and a further one percent in other private institutions. The limited role the private sector plays in hosting EC research fellows might be one of the reasons for the low relevance of research projects to the industry as perceived by fellows and their supervisors, as will be discussed in subsequent chapters.

While in most host countries the majority of fellows carried out the fellowship at institutions of higher education, the public research institutes played an important role in Spain (hosting 58 percent of the fellows), Greece (50 percent), France (48 percent) and Germany (39 percent). International organisations hosted about one quarter of the fellows going to Italy and Switzerland and for 16 percent of the fellows in Germany. In the case of Italy and Germany, most of these fellows spent a research period at the Joint European Research Centres and in the Switzerland in the European Centre for Nuclear Research (CERN).

As regards discipline, most of the fellowships in economics etc. (87 percent), chemistry, mathematics (70 percent each), engineering (66 percent) and earth sciences (61 percent) were awarded for research at institutions of higher education whereas fellowships in physics (39 percent) and life sciences (33 percent) were relatively frequent at public research institutions.

Number of training fellows

According to the administrators responding, the 592 host institutions of HCM and other EC training fellows addressed in the survey hosted in 1994, as the column on the right side of Table 18 shows, altogether 16,229 research training fellows (including those funded by other means), i.e. 27 on average per institution. As the columns on the right indicate, half of the institutions hosted at most five fellows, while 10 percent hosted more than fifty fellows. Thereby, public research institutions hosted the smallest numbers of fellows on average and international and intergovernmental organisations the largest numbers.

Spending a research training period at an institution with a large number of fellows was more likely for HCM and other EC-supported fellows than spending a period at one of the small host laboratories. Half of the EC fellows were at institution hosting more than 20 fellows, and a quarter each at institutions hosting 5–20 fellows respectively hosting up to 5 fellows. On average, EC fellows were hosted together with 75 other fellows (including those not supported by the EC) at their research institution.

As this survey did not include all EC fellows supported in 1994, we cannot exactly examine the proportion of EC fellows among all the fellows hosted by the respective institutions. It is obvious, though, that the EC fellows comprised only somewhat more than five percent of the all the fellows concurrently hosted.

Table 17
Type of Organisation Hosting Fellows, by Host Country (percent of all supervisor questionnaires returned)

	Host country																Total
	AT	BE	CH	DE	DK	ES	FI	FR	GB	GR	IE	IT	NL	NO	PT	SE	
Institute of higher education	100	77	52	40	63	41	50	43	70	43	87	37	71	67	68	88	58
Public research institute	0	9	11	39	19	58	50	48	20	50	13	27	17	0	5	0	29
Private research institute	0	4	11	3	13	0	0	5	6	0	0	7	8	33	26	6	6
International, inter-governmental organisation	0	9	26	16	3	0	0	2	1	7	0	27	2	0	0	0	6
Other public organisation	0	0	0	1	0	0	0	1	1	0	0	1	1	0	0	0	1
Other private organisation	0	1	0	0	2	0	0	1	1	0	0	0	1	0	0	0	1
Other	0	0	0	1	2	1	0	1	1	0	0	1	1	0	0	6	1
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
(n)	(3)	(209)	(65)	(228)	(64)	(91)	(6)	(597)	(793)	(14)	(30)	(175)	(183)	(3)	(19)	(17)	(2,497)

Question 1.5: Type of organisation

Source: Survey on supervisors

Table 18

Number of All Research Fellows and Number of EC Fellows Hosted by Institutions Responding to the Survey (absolute number and percent)

Number all of fellows (i.e. including EC fellows) per institution 1994	Number of institutions responding		Total number of EC fellows* hosted by institutions		Total number of all fellows 1994	
	Abs.	Percent	Abs.	Percent	Abs.	Percent
1 or 2	150	25.3	214	10.5	224	1.4
3 - 5	152	25.7	313	15.3	612	3.8
6 - 10	120	20.3	295	14.4	963	5.9
11 - 20	55	9.3	191	9.3	869	5.4
21 - 50	55	9.3	196	9.6	1,795	11.1
51 and more	60	10.1	836	40.9	11,766	72.5
Total	592	100.0	2,045	100.0	16,229	100.0

* All EC fellows who were selected between 1987 and 1993 and who started the fellowship period not later than December 1994.

Source: Survey on administrators

Administrative infrastructure for support of fellow

54 percent of the fellows for whom respective information was available were at host institutions which had established an administrative or service unit predominantly in support of international and European activities. Of course, this was more likely if the institution hosted larger numbers of fellows: while 36 percent of the institutions only hosting one EC fellow in 1994 had a such an international administrative or service unit, it was true for 66 percent of the institutions hosting more than ten EC fellows.

The units in charge of international activities varied substantially in size. On average, fellows were at institutions the international administrative or service unit in charge of them had three to four professional staff. Private research institutes least often had special units in charge of international activities, and those having such administrative and service units stocked them with a relatively small number of professional staff.

Most international units had a broad range of functions. As far as fellows for whom information was available spent their fellowship period at host institutions having established a unit in charge of international and European activities,

- 77 percent were at an institution where such a unit took care of the administration and planning of international activities,
- 65 percent were involved in assistance and guidance of the fellows,
- 54 percent supported networks with other institutions,
- 47 percent had counselling functions for students and staff, and
- 35 percent were involved in training activities (e.g. language training, etc.)

Table 19 suggests that involvement in counselling of students and staff is a more recent phenomenon. In contrast, support of networks with institutions seems to have been customary already in prior years.

Table 19
Main Functions of Special Units for International Activities, by Period of Hosting EC Fellows (percent of administrators at institutions having established an international unit, weighted by number of fellows hosted; multiple reply possible)

	Period of hosting fellows			Total
	Only prior to 1993	Prior and after 1993	Only since 1993	
Administration and planning of international activities	63	79	73	77
Training activities (e.g. language training, etc.)	15	39	29	35
Assistance, guidance, and caring for students and/ or staff	42	68	66	65
Counselling of students and/or staff	37	48	54	47
Support of networks with other institutions	53	55	47	54
Other	23	26	31	26
Not ticked	8	1	6	3
Total	241	317	306	307
(n)	(158)	(993)	(137)	(1,288)

Question 1.6: What are the main functions of administrative or service units that support of international/ European activities?

Source: Survey on administrators

Gender, age and nationality of the supervisors

Ten percent of the persons in charge of the supervision of EC fellows were female. Taking into account the low quota of female professors and women in top position of public and private organisations in most of the EU countries, we cannot consider this figure as surprising. Differences in the proportion of female supervisors by host country has to be viewed with some caution because the number of supervisors are small in most countries in which the respective proportions are above average (see Table 20): Portugal (50 percent), Greece (21 percent) and Finland (17 percent).

We notice a slightly higher proportion of female supervisors in life sciences (16 percent), the discipline with the highest proportion of female fellows. The lowest proportion of female fellows can be observed in engineering (4 percent), mathematics and physics (6 percent each).

The supervisors were on average 46 years old when they took over the consulting responsibility for the EC fellows. About one third were younger than 40 years, 42 percent were between 41 and 50 years, 25 percent between 51 and 60 years and four percent older than 60 years.

Most of the supervisors were employed in an institution located in their country of origin. However, 16 percent of the supervisors had not the nationality of the country in which they were employed at the time they took the responsibility for the EC fellows. As Table 20 shows, the respective proportion was highest in Switzerland (48 percent), Italy (30 percent) and Germany (29 percent). Additionally, about each third of the supervisors from Ireland

Table 20
Gender, Age and Nationality of Supervisors, by Host Country (percent and mean)

	Host country																Total
	AT	BE	CH	DE	DK	ES	FI	FR	GB	GR	IE	IT	NL	NO	PT	SE	
Women	0	9	6	7	9	10	17	14	8	21	0	12	8	0	50	21	10
Age of at the time of start of the fellowship	42.0	44.6	46.5	47.8	45.6	42.6	36.3	45.7	45.6	43.4	42.6	46.3	44.6	46.7	40.6	44.9	45.5
Not nationals of country of host laboratory	0	16	48	29	14	4	0	14	10	7	32	30	13	0	11	20	16
(n)	(3)	(142)	(56)	(173)	(58)	(72)	(6)	(516)	(673)	(14)	(25)	(142)	(150)	(3)	(18)	(15)	(2,066)

Question 1.1: Year of birth:

Question 1.2: Gender:

Question 1.3: What is your nationality?

Question 1.4: In which country is your institute/laboratory?

Source: Survey on supervisors

were not nationals of that country. On the other hand, the proportion of researchers from foreign countries in charge of supervision of fellows was rather low in Spain (4 percent) and Greece (7 percent). As one might expect, the number of foreign researchers was highest in Joint Research Centres and other international research centres.

Main activities of supervisors

On average supervisors estimated that they spent 55 percent of their work time on research activities. A further 22 percent of the work time were devoted to administrative matters, 17 percent to teaching, three percent to services and two percent to other activities. As one might expect, the time spent on the individual activities varied substantially by the type of organisation in which the supervisors were employed. As Table 21 shows, the average proportion of time spent on teaching was highest in higher education institutions (24.2 percent of the work time) whereas supervisors in private or public research institutions (68.9 and 65.9 percent) spent more time on research than supervisors employed in other organisations.

As compared to the results of a study conducted in 1992 on academics in higher education institutions in various European and non-European countries (cf. Teichler and Enders: "Berufsbild der Lehrenden und Forschenden an Hochschulen", Bonn 1995, pp. 23-26), persons in charge for the supervision of EC fellows spent on average slightly more work-time on administrative tasks and clearly more time on research.

However, the proportion of work time spent on administrative matters was highest in private and public institutions not primarily concerned with research (about 30 percent of the work time each). Also, supervisors in respective public organisations reported a relatively high proportion of work time (25 percent) spent on service activities.

Table 21
Proportion of Supervisors' Work Time Spent on Various Activities, by Type of Organisation (mean)

	Type of organisation							Total
	Institute of higher education	Public research institute	Private research institute	International, intergovernmental organisation	Other public organisation	Other private organisation	Other	
Teaching	24.2	7.6	6.5	3.6	6.5	1.8	9.6	17.1
Research	48.9	65.9	68.9	58.6	33.3	51.7	50.7	55.4
Administration	21.7	21.7	19.4	27.6	29.4	30.3	20.8	21.9
Service	3.0	2.8	1.7	7.8	25.3	7.2	8.8	3.3
Other	1.9	1.9	3.1	2.4	5.4	9.0	10.1	2.2
(n)	(1,202)	(603)	(113)	(91)	(12)	(15)	(25)	(2,061)

Question 1.6: How did you spend your work time on the following activities over the last two years? Please state percentages

Source: Survey on supervisors

4. Choice of the Training Fellowship

4.1 Fellows' Activities Prior to the Fellowship

Only about one third of fellows were employed prior to embarking the research period abroad with the help of the European research fellowship. A further sixth had another fellowship immediately before the EU grant. The largest proportion of the fellows were students, graduate students and doctoral candidates without being supported through regular employment or fellowship. Four percent considered themselves unemployed.

As Table 22 shows, even 21 percent of Human Capital and Mobility fellows were beneficiaries of another fellowship immediately prior to the research period abroad supported by the European Union.

Table 22
Status Prior to the Fellowship, by Type of Programme (percent)

	Type of programme				Total
	HCM	Predec. of HCM	Other progr. starting since 1992	Other progr. starting prior 1992	
Employed	25	34	29	31	29
Employed and student/ doctoral student	6	4	5	5	5
Fellow	21	13	14	14	17
Student	11	21	19	19	16
Doctoral student/candidate	30	24	27	26	27
Unemployed	4	3	7	4	4
Other	2	1	1	1	2
Total	100	100	100	100	100
(n)	(825)	(271)	(149)	(707)	(1,952)

Question 2.1.1: What was your status prior to the EC training fellowship?

Source: Survey on fellows

Table 23 indicates that those starting their European fellowship period in 1992 or later less often were previously employed than those who had started the fellowship period prior to 1992. This reflects a tightening academic labour market in the 1990s.

Of those employed prior to the EU research fellowship period,
- 10 percent were employed part-time, whereby the working-time corresponds on average to about half of full-time employment,
- one percent were self-employed,
- about two-thirds were employed for fixed period or on short-term basis, whereby the duration of fixed-term contracts was about two years on average.

Table 23
Status Prior to the Fellowship, by Type of Fellowship and Year of Start (percent)

	Type of fellowship and year of start					Total
	Post-grad. prior 1992	Post-grad. 1992 and later	Post-doc. prior 1992	Post-doc. 1992 and later	Experienced researcher	
Employed	23	15	41	29	66	29
Employed and student/ doctoral student	5	6	3	5	8	5
Fellow	10	9	20	26	8	17
Student	34	37	2	2	2	16
Doctoral student/candidate	24	29	28	30	14	27
Unemployed	3	4	4	6	2	4
Other	1	1	1	2	2	2
Total	100	100	100	100	100	100
(n)	(545)	(281)	(349)	(698)	(65)	(1,938)

Question 2.1.1: What was your status prior to the EC training fellowship?

Source: Survey on fellows

35 percent of the European research fellows, who were employed prior to this fellowship period, had a formal agreement to return to their employer thereafter. A further 11 percent expected that they could return, though they had no formal guarantee. More than half of the previously employed fellows had neither formal nor informal options to return.

Again, Table 24 indicates a worsening of the labour market for the researchers. Those fellows previously employed, who started the fellowship since 1992, were more often part-time employed and on average for shorter work hours, were more often fixed-term and short-term employed and that for shorter periods, and finally had less often the option to return to their prior employer than the fellows who started the fellowship period prior to 1992.

Among these various aspects of employment conditions, the opportunity to return to the previous employer varied most clearly by home country. As Table 25 shows, a substantially larger proportion of previously employed fellows coming from France and the Southern European countries than those from other countries had the option to return to their employer after the fellowship period supported by the European Union.

The European research fellows previously employed also were asked to state the sector of the employment and the major activities. As Table 26 indicates, prior employment sectors differed according to the status of the fellows:

- Of the previously employed fellows, who had not yet awarded a doctoral degree when they embarked on the EU fellowship, more than one third had been active at an institution of higher education, almost one third at a research institute, and finally about one third in other sectors. Actually, 17 percent of those young fellows previously employed were active in private industry and services.
- Among the post-doctoral EU fellows who had been previously employed, the majority were active at institutions of higher education and also almost one third in research institutions. Only 11 percent were employed in other sectors.

- Finally, of the experienced researchers surveyed who were previously employed, the majority were active at institutions of higher education and all the others at research institutions. Not a single of the experienced researchers came from other sectors.

Table 24
Employment Conditions Prior to the Fellowship Period, by Type of Fellowship and Year of Start (percent of fellows employed prior to the fellowship)

	Type of fellowship and year of start					Total
	Post-grad. prior 1992	Post-grad. 1992 and later	Post-doct. prior 1992	Post-doct. 1992 and later	Experienced researcher	
Part-time employment*	14	23	5	8	2	10
Working time of those employed part-time**	47.3	40.4	62.9	52.7	50.0	49.4
Fixed-term and short-term-employment*	62	78	54	80	34	66
Duration of fixed-term contract period (months)	18.3	15.5	27.3	23.7	41.1	23.4
Return to previous employer neither agreed nor informally expected*	55	69	36	63	11	51

* Percentage of all fellows employed prior to the fellowship period

** Mean proportion of regular work time for those employed part-time

Source: Survey on fellows

The EC fellows previously employed estimated that they spent on average two-thirds of the working time on research and one sixth on teaching. Five percent was spent on average on administration, and 10 percent on other activities. Naturally, these assignments varied according to sector of employment. As Table 27 shows, fellows previously employed in public or private research institutes spent about 90 percent of the work time on research. Research was also the dominant activity (70 and 65 percent of the work time) in international organisations and higher education institutions whereas fellows employed in other public or private organisations were less often concerned with research. In the latter type of organisations about one third of the work time was spent on services. Fellows previously employed in higher education institutions reported not only that they were strongly involved in research activities but also stated that they had spent a substantial proportion of work time (27 percent) on teaching activities.

Table 25
Agreement with Employer about the Continuation of Employment after the Fellowship, by Home Country (percent of fellows employed prior to the fellowship)

	Home country															Total*
	AT	BE	CH	DE	DK	ES	FI	FR	GB	GR	IE	IT	NL	PT	SE	
Yes, continuation was agreed	0	23	0	20	31	47	67	54	18	32	21	47	16	73	50	35
Continuation not formally agreed, but expected	33	11	0	10	19	12	0	5	8	15	16	9	14	16	0	11
No	33	62	100	69	50	38	0	41	73	52	58	41	67	9	50	51
Other	33	4	0	1	0	3	33	0	0	2	5	3	2	2	0	2
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
(n)	(3)	(47)	(2)	(110)	(16)	(92)	(3)	(61)	(49)	(60)	(19)	(74)	(49	(44)	(4)	(635)

* Excluding Iceland and Norway (each one respondent only)

Question 2.1.5: Did you have an agreement with your employer (prior to the fellowship) about the continuation of employment after the fellowship?

Source: Survey on fellows

Table 26
Sector of Employment Prior to the Fellowship, by Type of Fellowship (percent of fellows employed prior to the fellowship)

	Type of fellowship			Total
	Junior/ post-grad.	Senior/ post-doct.	Experienced researcher	
Institute of higher education	38	58	57	51
Public research institute	25	27	43	28
Private research institute	6	4	0	4
International, intergovernmental organisation	3	1	0	2
Other public sector	6	5	0	5
Other private sector	17	3	0	7
Other	4	2	0	2
Total	100	100	100	100
(n)	(209)	(386)	(47)	(642)

Question 2.1.6: In which sector were you active prior to the fellowship?

Source: Survey on fellows

Table 27
Average Percentage of Time Spent in Prior Employment on Various Activities, by Sector of Employment Prior to the EC Fellowship (mean of fellows employed prior to the fellowship)

	Sector of employment							Total
	Institution of higher education	Public research institute	Private research institute	Internat. intergov. organisation	Other public sector	Other private sector	Other	
Teaching	26.9	3.7	1.3	2.5	19.9	11.5	20.0	17.3
Research	65.1	87.2	89.0	69.5	33.9	28.8	61.2	67.9
Administration	5.0	2.8	6.6	14.0	10.2	9.8	3.8	5.2
Services	2.2	4.5	3.1	4.0	30.2	36.6	8.1	7.1
Other, please specify	.8	1.9	.0	10.0	5.9	13.4	6.9	2.6
(n)	(333)	(180)	(27)	(10)	(35)	(48)	(13)	(646)

Question 2.1.7: To what extent did your employment prior to the fellowship include the following activities? (Please state percentages)

Source: Survey on fellows

4.2 Prior Information and Contacts

Fellows were most frequently informed by persons at the host laboratory about the opportunity to obtain an EU training fellowship. 34 percent mentioned this as the only or as one of the major sources of information. The professor or supervisor at the host institution was of-

ten named as a source of information (28 percent). Various other sources - institutions and colleagues - played a role as well, as Table 28 shows.

Co-operation in this respect between research institutions of different European countries had already reached this level in the mid-eighties. In contrast, information by persons at the host laboratory was substantially less frequent in previous decades when fellows could apply for a fellowship without prior consent by the host institution.

In including information based on the previous survey (Teichler et al., 1990, pp. 43-45), we note that supervisors at the home institution were the most frequent source of information up to the 1980s. Their role clearly declined in recent years while colleagues and institutional information were more often named recently.

The sources of information for HCM fellows were more varied than those for fellows supported by other EC programmes in the late 1980s and early 1990s. While the latter relatively often were informed by their supervisors or directly by the European Commission, Human Capital and Mobility fellows relatively often heard about the fellowship through information spread by their home institution as well as colleagues or former fellows.

Table 28
Fellow's Ways of Getting Informed About the EC Training Fellowship, by Year of Start
(percent; multiple reply possible)

	Year of start									Total
	'87	'88	'89	'90	'91	'92	'93	'94	'95	
Person at host laboratory	31	29	39	33	35	37	35	33	20	34
Professor or supervisor at home institution	15	29	37	34	30	28	25	26	32	28
Information spread by the home institution	15	15	20	18	22	19	26	26	29	23
Colleague(s)/fellow students	19	6	14	17	16	20	23	28	29	21
EC announcements/publicity	23	31	18	23	16	18	21	19	10	20
Previous EC fellows	8	5	9	11	11	8	13	18	22	12
National information or contact points	8	13	9	5	11	10	14	12	10	11
Other source	12	3	4	2	5	5	3	3	7	4
Total	131	131	150	143	144	146	161	166	159	154
(n)	(26)	(119)	(153)	(175)	(219)	(229)	(499)	(497)	(41)	(1,958)

Question 2.2.1: How did you learn about the EC training fellowship?

Source: Survey on fellows

The role played by announcements on the part of the European Commission increased for some period. Reference to them grew from 13 percent around 1970 to 34 percent in the mid-eighties. In recent years, however, only 20 percent of the fellows named the European Commission as a key source of information. This is due to the fact that the Commission had put stronger efforts to channel information through other institutions rather than addressing potential fellows or their supervisors directly. In recent years, for example, the proportion of fellows constantly grew who received information spread by their home institution. Also national information and contact points came into play. However, they were only mentioned by 11 percent of the fellows surveyed in this study as the major or as one of the major sources

of information. They played a more important role in small European countries or in new member states or newly co-operating countries than in the larger countries already strongly involved in EC research fellowship programmes since many years.

As already noted in the past, the sources of information vary substantially according to status of the fellows, as Table 29 shows. The more senior the rank of the fellows the more often they are likely to be informed by institutional sources, notably information spread by the home institution or the European Commission. The more junior the fellows the more often they were informed personally, by supervisors, colleagues and persons from the host institution.

Table 29
Fellows' Ways of Getting Informed About the EC Training Fellowship, by Type of Fellowship (percent; multiple reply possible)

	Type of fellowship			Total	In comparison:
	Junior/ post-grad.	Senior/ post-doct.	Experienced researcher		Fellows mid-60s to mid-80s
Information spread by the home institution	14	30	31	23	*
Professor or supervisor at home institution	31	26	22	28	40
EC announcements/publicity	14	24	25	20	21
Person at host laboratory	37	33	23	34	20
Colleague(s)/fellow students	19	23	17	21	19
Previous EC fellows	11	14	9	13	9
National information or contact points	10	12	17	11	*
Other source	5	3	2	4	1
Total	142	165	147	154	121
(n)	(821)	(1,048)	(64)	(1,933)	(470)

* Not asked for in previous survey

Question 2.2.1: How did you learn about the EC training fellowship?

Source: Survey on fellows

Supervisors, as one might expect, more often got informed by the European Commission, either through announcement or through personal information, and in some cases through general literature about the scheme or through the national administration and contact points. Individual information by Commission officials was relatively often named by supervisors of fellows supported in the framework of programmes directed to specific research areas. This was most often the case for programme in engineering.

Table 30
Supervisors' Ways of Learning About the EC Training Fellowship, by Type of Programme (percent; multiple reply possible)

	Type of programme					Total
	HCM	Predec. of HCM	Other progr. starting since 1992	Other progr. starting prior 1992	Various	
EC announcements/publicity	49	36	51	42	64	45
From the EC fellow	36	38	28	35	28	35
From a colleague	28	27	23	17	23	24
From someone in your national administration or contact points	26	22	21	12	26	20
From Commission official(s)	12	10	23	30	24	19
From literature about the scheme	17	12	14	9	18	13
Other source	4	4	6	4	4	4
Total	172	149	166	149	188	161
(n)	(775)	(325)	(158)	(719)	(99)	(2,076)

Question 2.1: How did you learn about the EC training fellowship?

Source: Survey on supervisors

Table 31
Fellows' Ways of Getting in Touch with the Host Laboratory, by Type of Fellowship (percent)

	Type of fellowship			Total
	Junior/ post-grad.	Senior/ post-doct.	Experienced researcher	
Only through existing ties between home and host institution	54	38	42	45
Only through scientific publications	8	16	14	13
Existing ties and conferences or publications	7	16	13	12
Only through participation in conferences	7	13	14	10
Participation in conferences and publications	2	6	9	5
Only through other ways	22	11	8	15
Total	100	100	100	100
(n)	(816)	(1,042)	(64)	(1,922)

Question 2.2.2: How did you get in touch with the host laboratory?

Source: Survey on fellows

However, a substantial proportion of supervisors got informed through other than the formal and informal channels of information. More than one third learned about the training programmes from the fellows and about one quarter from colleagues, as Table 30 shows. One should bear in mind, though, that the majority of supervisors named more than one source of information.

More than half of the fellows got in touch with the host laboratory through existing ties between the home and the host institution. About one fifth each named - solely or additionally - contacts through participation in conferences or through publications. As one might expect these latter types of contacts played less often a role for fellows going abroad prior to being awarded a doctoral degree than for the more advanced fellows (see Table 31).

Most supervisors at the host laboratory had prior contacts to the institution the fellows came from. Thereby, contacts to single persons clearly outnumbered formal research co-operation. Almost one quarter of the supervisors reported that they had no prior contacts at all to the fellow's home institution (see Table 32).

Table 32
Supervisors' Kinds of Prior Contacts with the Former Institution of the Fellow, by Type of Programme (percent; multiple reply possible)

	Type of programme				Total
	HCM	Predec. of HCM	Other progr. starting since 1992	Other progr. starting prior 1992	
No contacts at all	21	21	24	25	23
Informal contacts between single persons	61	60	48	50	55
Formal research cooperation between both institutions	13	17	23	20	17
Both institutions are members of a wider research network	13	7	15	13	12
Other	6	5	7	5	5
Not applicable (fellow did not come from an institution, etc.)	1	2	2	2	2
Total	114	111	120	114	114
(n)	(955)	(392)	(176)	(966)	(2,489)

Question 2.2: What kind of contacts did you or your institute/laboratory have with the fellows former institution?
Source: Survey on supervisors

About half of the supervisors knew the fellows prior to the application. In all of these cases, the fellows visited the host institutions in advance in order to establish contact. One fifth of the supervisors reported that they had visited the fellows at his or her prior institution. Correspondence and phone were customary, if no personal visits had taken place.

Prior personal acquaintance became more frequent in recent years, as Table 33 shows. Actually, 60 percent of the HCM supervisors stated that they knew the fellow personally prior to her or his application.

Table 33
Supervisors' Personal Acquaintance with the Fellows Prior to the Application, by Type of Fellowship and Year of Start (percent)

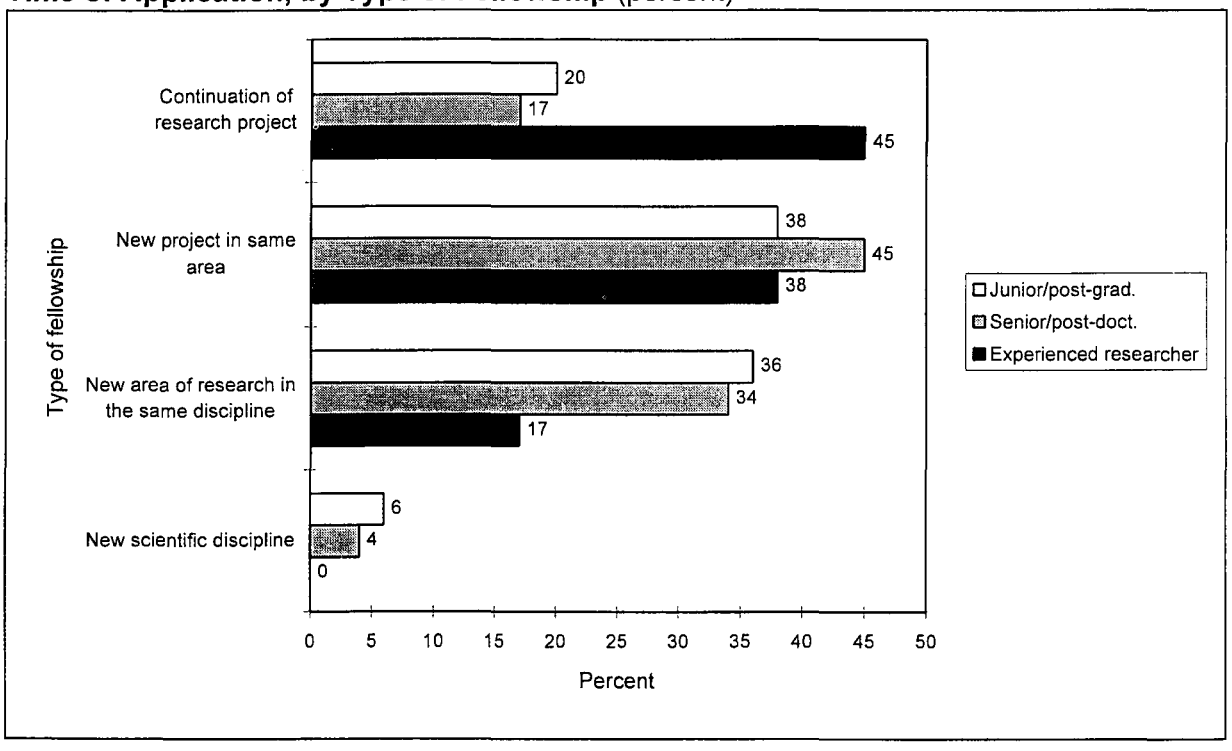
	Type of fellowship and year of start					Total
	Post-grad. prior 1992	Post-grad. 1992 and later	Post-doc. prior 1992	Post-doc. 1992 and later	Experienced researcher	
Yes	42	57	47	55	66	50
No	58	43	53	45	34	50
Total	100	100	100	100	100	100
(n)	(706)	(287)	(406)	(838)	(67)	(2,304)

Question 2.4: Did you know the fellow personally prior to his/her application for the fellowship?

Source: Survey on supervisors

Prior personal acquaintance varied according to discipline. 68 percent of the supervisors in economics and 62 percent in mathematics knew the fellow personally in advance. In contrast, only 40 percent of the supervisors in chemistry reported that they got to know the fellow personally before she or he applied.

Chart 7
Relation of the Fellows' Research Project at the Host Institution to the Work at the Time of Application, by Type of Fellowship (percent)



Question 2.2.3: How is your research project at the host institution related to your work at the time of application?

Source: Survey on fellows

About one fifth of the EC fellows undertook research at the host institution which they viewed as a continuation of their research work they already did at the time when they applied for the fellowship. This was the case for almost half of the experienced research fellows, as Chart 7 shows. Most fellows began new projects in the same research area or at least in the same discipline. Five percent got active in another discipline with the help of the EC research fellowship. Those changing the discipline moved slightly more often to life sciences than to other disciplinary groups.

93 percent of the supervisors considered the research project undertaken by the fellows as clearly linked to their own area of specialisation (1 or 2 on a scale from "closely linked" to "not at all linked"). As only 77 percent stated a close link between the fellows' research activities abroad and area of specialisation of the institutions, these findings suggest that the information available and the contacts established did not just link institutions of similar profiles, but were even more efficient as a rule in finding supervisors who were suitable for their role.

Table 34
Initiator of the Research Project, by Type of Fellowship (percent)

	Type of fellowship			Total
	Junior/ post-grad.	Senior/ post-doct.	Experienced researcher	
Only supervisor and/or colleague(s)	64	57	33	59
Only the fellow	20	26	48	24
Only prior colleagues/supervisor of the fellow	7	5	7	6
Supervisor together with the fellow	5	8	6	6
Other types of joint initiative	2	2	3	2
Other initiator(s)	1	2	3	2
Total	100	100	100	100
(n)	(1,004)	(1,248)	(67)	(2,319)

Question 2.3: Who initiated the research project for which you and your fellow applied for EC support?

Source: Survey on supervisor

Actually, about two-thirds of the supervisors reported that they had initiated - in most cases only themselves possibly together with colleagues of their institution and in a few cases together with the fellows and their home supervisors - the project the fellows eventually undertook when they were awarded the fellowship. This was almost as often true for supervisors of post-doctoral fellows as of fellows of a doctoral stage of academic learning and training (see Table 34). Among the latter, 20 percent solely initiated their project themselves according to the supervisors' view, among the post-doctoral fellows 26 percent.

It certainly does not come as a surprise that a larger proportion of the experienced researchers initiated the projects themselves. In reverse, it is surprising to note that according to the supervisors about half of the experienced fellows were not involved in initiating the project.

The close link between the fellows' projects and the supervisors' area of specialisation as well as the strong role the supervisors played in initiating the project were major reasons for the supervisors at the host institution to take over the supervision function of the fellows'

projects (see Table 35). This does not mean, however, that supervisors did not accept at all initiatives by the fellows if the projects proposed did not so closely meet the supervisors' specialisation and research interests.

Table 35
Supervisors' Reasons for Taking Over the Supervision of the Fellow's Research Project, by Type of Programme (percent; multiple reply possible)

	Type of programme				Total
	HCM	Predec. of HCM	Other progr. starting since 1992	Other progr. starting prior 1992	
The project fits your area of specialisation	71	65	71	67	68
You initiated the project	50	56	62	56	54
The fellow had asked you to supervise his/her project	49	44	42	40	44
Responsibility for the supervision of all fellows	6	5	5	6	6
Other	3	4	4	2	3
Total	180	175	184	172	176
(n)	(954)	(393)	(175)	(968)	(2,490)

Question 2.6: What were the reasons for you to take over the supervision of the fellows project?
Source: Survey on supervisors

4.3 Motives for Application and Other Options

The European research fellows were asked to state why they decided to apply for a fellowship. They were provided with a list of 14 statements each to be rated on a scale from 1 = "very important" to 5 = "not at all important". Replies 1 and 2 have been grouped together as "important" in the subsequent tables. The results of a factor analysis suggest the following five groups of statements:

- Academic and long-term career motives,
- Esteem of host laboratory or supervisor,
- Desire to continue or change field,
- Intention of improving job prospects,
- Attractive fellowship conditions and international experience.

As one might expect, almost all fellows named enlargement of scientific knowledge as one of their major motives for going abroad with the help of an European research fellowship. Almost three quarters wanted to acquire international experience, and the same proportion of fellows hoped that their long-term career prospects were improved by the fellowship (see Table 36). Altogether, as Chart 8 suggests, manifold motives played a role when researchers decided to apply for an European fellowship.

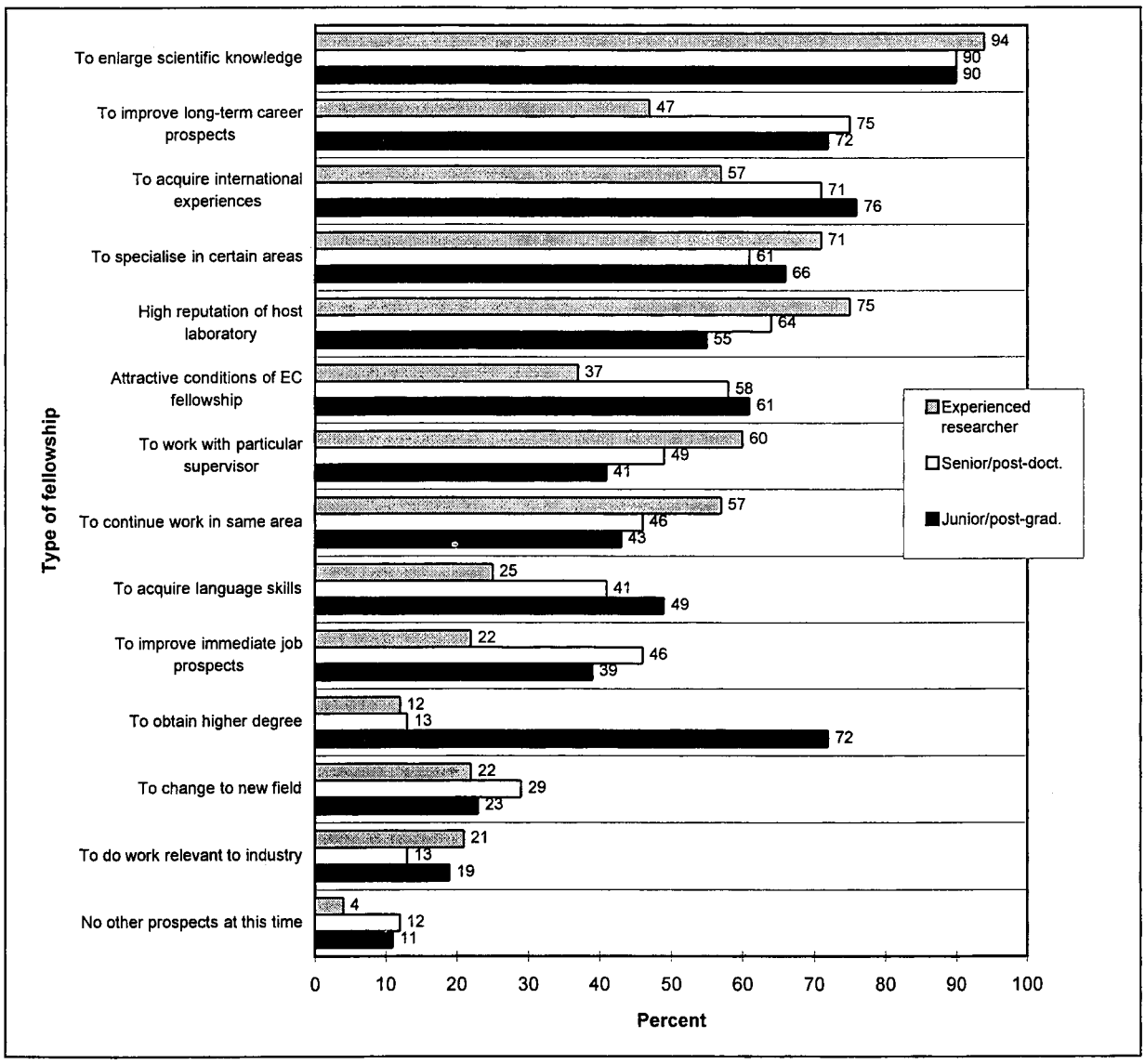
In comparing the statements made by fellows surveyed in this study to those made by previous European research fellows who were abroad between the mid-sixties and mid-eighties

we note a substantial shift of reasons over time. Recent fellows stated by far more frequently that

- the high reputation of the host laboratory was important for their decision to apply (61 percent as compared to 36 percent in the past). This was stated most frequently by Human Capital and Mobility fellows (66 percent),
- the attractive conditions of the European fellowship and of the work at an institution in another European country played a major role for their decision (59 percent as compared to 41 percent).

It is certainly worth noting that more recent fellows than in the past had expected to improve their job and career prospects both in short-term and in long-term perspective. This might reflect a positive assessment of the fellowship as well as increased concern about the academic labour market in general.

Chart 8
Important Reasons to Apply for an EC Fellowship, by Type of Programme (percent*)



* Categories 1 and 2 on a scale from 1 = "very important" to 5 = "not at all important"

Question 2.2.4: Why did you decide to apply for an EC fellowship?

Source: Survey on fellows

Altogether, we had already noted in the previous study that the image of the European research fellowship has improved over the years. The responses by the fellows surveyed recently can certainly be viewed as a success of the reforms of the European research fellowship schemes, because fellows consider the conditions of the fellowship and the host institutions more frequently as attractive than their predecessors did.

Some motives are naturally linked to certain biographical conditions, career stages or settings of research abroad. As one might expect, junior fellows and notably those going abroad for a long period most often expect to obtain a higher degree with the help of the European research fellowship. Apart from that, fellows in the pre-doctoral stage did not differ substantially in their motives for application from post-doctoral fellows (see Table 36).

Table 36
Important Reasons to Apply for an EC Fellowship, by Type of Fellowship (percent*)

	Type of fellowship			Total
	Junior/ post-grad.	Senior/ post-doct.	Experienced researcher	
To enlarge scientific knowledge	90	90	94	90
To improve long-term career prospects	72	75	47	73
To live abroad and to experience	76	71	57	73
To specialise in certain area	66	61	71	63
Because of high reputation of host laboratory	55	64	75	61
Attractive conditions of EC fellowship and work	61	58	37	59
To work with particular supervisor	41	49	60	46
To continue work in same area	43	46	57	45
To acquire language skills	49	41	25	44
To improve immediate job prospects	39	46	22	42
To obtain higher degree	72	13	12	39
To change to new field	23	29	22	26
To do work relevant to industry	19	13	21	16
No other prospects at this time	11	12	4	11

* Categories 1 and 2 on a scale from 1 = "very important" to 5 = "not at all important"

Question 2.2.4: Why did you decide to apply for an EC fellowship?

Source: Survey on fellows

Experienced researchers, however, form a special group, as far as their reasons of application for an EU fellowships are concerned. They less often appreciate the conditions of the fellowship and are less often inclined to strive for general learning, such as foreign language of improvement and experience of life abroad. They expressed more targeted research-linked motives such as the reputation of the host institution, the co-operation with certain persons and the continuation of research in areas they are already involved in.

Statements about the reasons to apply for an EC research fellowship vary most strongly according to the host country in two respects: the reputation of the host laboratory and the expected improvement of long-term career prospects. As Table 37 shows, European researchers taking up fellowships in Southern European countries had by far more moderate

Table 37
Importance of Reasons to Apply for an EC Fellowship, by Home Country and by Host Country (percent*)

	Country																	Total
	AT	BE	CH	DE	DK	ES	FI	FR	GB	GR	IE	IT	LU	NL	NO	PT	SE	
Home country																		
Because of high reputation of host laboratory	67	51	67	55	61	65	100	61	56	65	71	63	25	55	40	64	42	60
To improve long-term career prospects	67	62	33	74	61	75	100	62	78	82	72	69	60	76	40	81	92	72
Host country																		
Because of high reputation of host laboratory	100	61	70	67	66	41	75	59	67	11	44	37	–	58	50	7	86	61
To improve long-term career prospects	67	73	68	73	68	55	33	72	78	60	72	70	–	67	50	40	64	72

* Categories 1 and 2 on a scale from 1 = "very important" to 5 = "not at all important"

Question 2.2.4: Why did you decide to apply for an EC fellowship?

Source: Survey on fellows

expectations in those respects at the outset than those going to other countries in Europe. Conversely, fellows from Southern European Countries more often named the high reputation of the host laboratory and the hope to improve long-term career prospects as motives for application. The differences according to home country, though, are smaller than those according to host country.

More than three quarters of the European research fellows had considered other options as well at the time they applied for the fellowship. Only a minority put all their hopes on the European research fellowship. Among the other options considered, employment in the home country (37 percent) was most often named, followed by other fellowships for research abroad (32 percent).

Table 38
Other Options Considered by Fellows at the Time of Application, by Type of Programme (percent)

	Type of programme				Total	In comparison:
	HCM	Predec. of of HCM	Other progr. starting since 1992	Other progr. starting prior 1992		Fellows mid-60s to mid-80s
No	17	26	23	25	22	24
Employment in previous country	19	21	19	19	19	20
Fellowship in previous country	10	10	11	9	10	11
Other activity in previous country	2	2	2	3	2	4
Various options in previous country	5	4	7	5	5	7
Employment abroad	3	3	2	4	4	4
Fellowship abroad	20	14	9	15	17	11
Other activity abroad	1	1	1	1	1	1
Various options abroad	3	1	1	2	2	4
Employment in previous country and abroad	3	2	6	4	3	5
Fellowship in previous country and abroad	4	4	2	3	4	2
Various options in previous country and abroad	13	11	17	9	12	5
Total	100	100	100	100	100	100
(n)	(833)	(272)	(150)	(713)	(1,968)	(465)
Proportion of fellows applying for another fellowship	54	41	38	41	46	25

Question 2.2.5: What other options did you consider at the time of application?

Question 2.2.6: Did you apply for other fellowships beside the EC one?

Source: Survey on fellows

About the same proportion of fellows from prior decades, as the comparison to the previous survey shows, considered other options. Among the options considered, though, recent fel-

lows more often named other fellowships for research abroad (32 percent as compared to 24 percent). Notably, Human Capital and Mobility fellows often considered other fellowships for research abroad (39 percent), as Table 38 underscores.

The most striking change over time were not the consideration of other options, but rather the actual efforts of opening up those options. While only 25 percent of the European fellows of earlier decades had initially applied for other fellowships, this proportion was 46 percent among recent fellows. Among them, more than half of the Human Capital and Mobility fellows had applied for other fellowships beside their application for a HCM fellowship.

5. Experiences During the Fellowship Period

5.1 General Research Conditions and Activities

At large, European research fellows considered the choice of the host institution to be appropriate, as far as the research area is concerned. When asked about the role the host institution plays in the area of specialisation the fellows were involved in during their research training period abroad, only three percent replied that it did not fit well and 36 percent considered the host institution to be one of several places where one could specialise in their specific field. 61 percent of the fellows stated that the host institution was one of the few places in their area of specialisation.

As Table 39 shows, recent European research fellows saw a closer match between the host institution's and their own area of specialisation than those who had gone abroad from the mid-sixties to the mid-eighties and who had been surveyed in the prior study already referred to. It is also worth noting that differences of ratings according to the host country which had been substantially in favour of German, British and French host institutions in the previous survey, turned out to be smaller in the recent survey.

Table 39
Role of the Host Laboratory in the Area of Specialisation of the EC Fellow, by Type of Programme (percent)

	Type of programme				Total	In comparison:
	HCM	Predec. of of HCM	Other progr. starting since 1992	Other progr. starting prior 1992		Fellows mid-60s to mid-80s
Host lab is one of the few specialised in this area	62	64	58	59	61	52
Various host labs are specialised in this area	35	34	41	38	36	42
Host lab did not fit well to the area of specialisation	3	2	1	3	3	5
Total	100	100	100	100	100	200
(n)	(828)	(270)	(146)	(711)	(1,955)	(467)

Question 3.1.1: What role did/does the host laboratory play in the area of specialisation you were/are involved in during your EC training fellowship? Please choose the most appropriate category.

Source: Survey on fellows

As the European research fellowship schemes also aim to promote research in industry and links between academic institutions and industry, the fellows were asked to state whether their activity at the host institution was linked to industry. 13 percent of the fellows considered their research activity in another European country to be of direct interest of industry whereby two percent actually spent their fellowship period at an industrial laboratory. 49 percent replied that their research activity at the host institution could be of long-term benefit for industry, whereas 36 percent said that there were not any links of that kind to their knowledge.

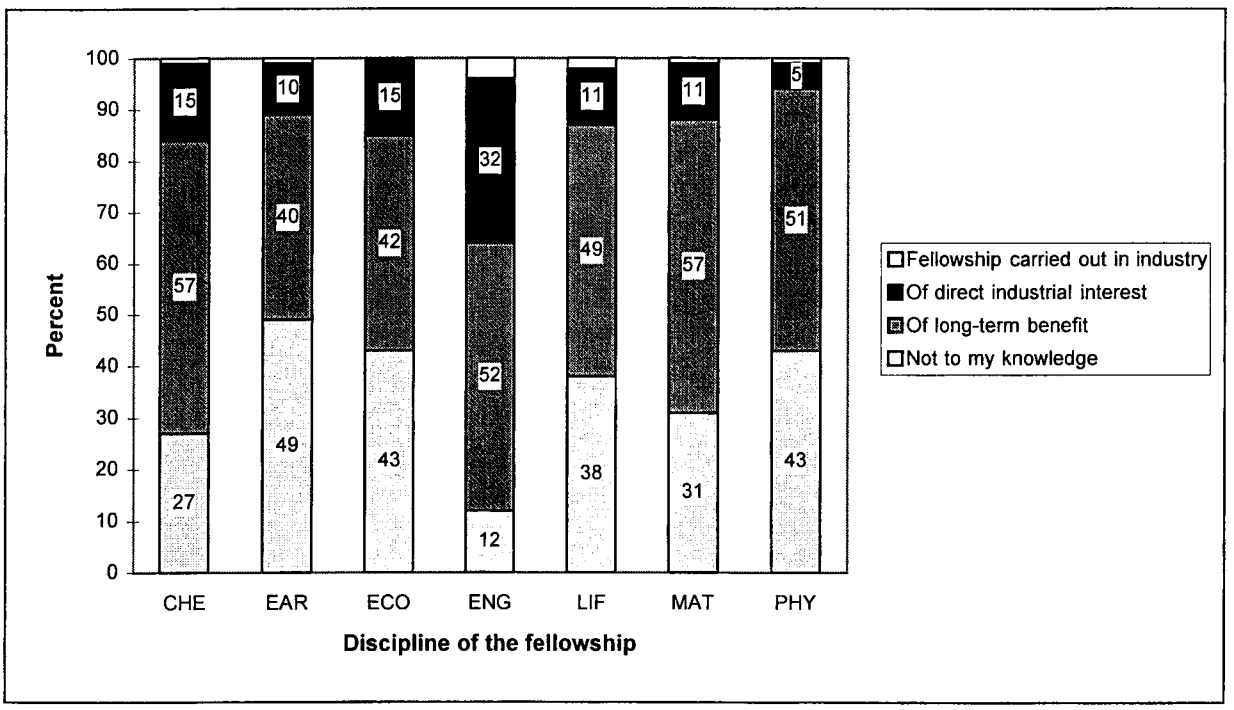
Table 40
Relevance of the Fellows' Activities at the Host Laboratory to Industry, by Type of Programme (percent)

	Type of programme				Total	In comparison:
	HCM	Predec. of of HCM	Other progr. starting since 1992	Other progr. starting prior 1992		Fellows mid-60s to mid-80s
Not to my knowledge	39	45	28	32	36	58
Of long-term benefit	50	46	44	51	49	34
Of direct industrial interest	10	9	21	15	13	8
Host laboratory was/is an industrial institution/company	1	1	7	1	2	1
Total	100	100	100	100	100	100
(n)	(827)	(271)	(149)	(711)	(1,958)	(446)

Question 3.1.2: Was/is your activity at the host laboratory relevant to industry? Please choose the most appropriate category.

Source: Survey on fellows

Chart 9
Relevance of the Fellows' Activities at the Host Laboratory to Industry, by Discipline of the Fellowship (percent)



Che = Chemistry
Ear = Earth sciences
Eco = Economical, social and human sc.
Eng = Engineering sciences
Lif = Life sciences
Mat = Mathematics and information sc.
Phy = Physics

Question 3.1.2: Was/is your activity at the host laboratory relevant to industry? Please choose the most appropriate category.

Source: Survey on fellows

Recently, links between research fellowships and industry have increased. Of the fellows going abroad from the mid-sixties to the mid-eighties who had responded to the prior survey, only nine percent had considered their research activities abroad to be of direct industrial interest or had spent the fellowship period in an industrial research laboratory, and only 34 percent considered it of long-term benefit to industry (Teichler et al., 1990, pp. 79-80).

Table 40 shows that the link to industry was stronger for fellows going abroad in the framework of some specialised fellowship programmes than in the framework of the Human Capital and Mobility scheme. Actually, close links to industry were most often reported by fellows specialised in engineering (see Chart 9).

Research in the project applied for is expected to be the key activity at the host institution during the fellowship period abroad. Fellows were asked whether they were additionally involved in further activities. As Table 41 indicates,

- 22 percent of the fellows reported that they were involved in additional research projects,
- 13 percent in teaching,
- 4 percent in consultancy, and
- 5 percent in other activities.

We note that doctoral candidates among the fellows were less frequently involved in further research projects than post-doctoral fellows and experienced researchers. Altogether, fellows spending at most six months abroad were less involved in further activities than those staying for a longer period.

It might be added here that the supervisors were asked as well whether their fellows were involved in other activities. Actually, the supervisors reported a quarter less of those activities than the fellows reported. This holds true as well, if we compare only the findings in those cases, when both the fellow and his or her supervisor responded to the questionnaire. It seems justified to assume that the fellows' responses are valid. This suggests that about a quarter of the supervisors were not informed about the additional activities of their fellows.

Table 41
Other Activities Undertaken by Fellows Beside the Work on Project Supported by the EC, by Type of Programme (percent; multiple reply possible)

	Type of programme				Total
	HCM	Predec. of HCM	Other progr. starting since 1992	Other progr. starting prior 1992	
No	61	67	60	68	64
Yes, other research projects	24	19	24	20	22
Yes, teaching	14	16	9	11	13
Yes, consultancy	4	4	5	4	4
Yes, other	5	4	8	6	5
Total	108	109	107	108	108
(n)	(827)	(272)	(148)	(708)	(1,955)

Question 3.1.10: Beside the work on your project supported by the EC, were/are you involved in other activities?

Source: Survey on fellows

Almost all fellows had the opportunity of participating in workshops and conferences during the fellowship period. Only 10 percent reported that they did not attend any conference or workshop at all during that period. As Table 42 shows,

- about two-thirds participated at conferences in the host country,
- about one third in the home country,
- more than half in other European countries, and
- almost one third outside Europe.

Table 42
Participation in Conferences/Workshops During the Fellowship, by Type of Programme (percent; multiple reply possible)

	Type of programme				Total
	HCM	Predec. of HCM	Other progr. starting since 1992	Other progr. starting prior 1992	
Yes, in the country of the host institution	70	69	68	63	67
Yes, in home country	36	32	27	31	33
Yes, in other European countries	59	54	47	56	56
Yes, in other, i.e. non-European countries	35	26	30	23	29
No	8	8	14	12	10
Total	208	190	185	185	195
(n)	(829)	(272)	(148)	(708)	(1,957)

Question 3.1.9: Did/do you participate in conferences/workshops during your fellowship?

Source: Survey on fellows

As one might expect, the variety of conference attendance was greater, if the fellowship period was long (see Table 43). While 41 percent of those spending at most six months abroad did not attend any conferences or workshops at all during that period, only three percent of those staying abroad for more than two years did not attend conferences.

The vast majority of fellows worked in a research team with colleagues from the host institution and other fellows. According to information provided by the supervisors,

- 66 percent of the fellows worked in a team solely set up by researchers from the host institution and the respective fellow;
- 4 percent in a team solely based on other fellows; and
- 14 percent in a team with researchers and other fellows of the host institution.

Fellows working in a research project in the field of physics (91 percent) and engineering (87 percent) were most often integrated in research teams (see Table 44). On the other hand, the experience of team work was least frequent for fellows in economics and other social sciences and humanities (65 percent) as well as in mathematics (74 percent).

Table 43
Participation in Conferences/Workshops During the Fellowship, by Duration of the Fellowship (percent; multiple reply possible)

	Overall duration of the EC fellowship (months)					Total
	Up to 6	7 - 12	13 - 24	25 - 36	37 and more	
Yes, in the country of the host institution	46	63	71	66	70	67
Yes, in home country	14	26	36	36	58	33
Yes, in other European countries	22	40	61	68	74	56
Yes, in other, i.e. non-European countries	8	19	34	32	32	29
No	41	15	7	3	3	10
Total	131	162	209	206	236	195
(n)	(130)	(380)	(1,127)	(269)	(66)	(1,972)

Question 3.1.9: Did/do you participate in conferences/workshops during your fellowship?
Source: Survey on fellows

Table 44
Involvement of the Fellow in a Research Team, by Discipline of the Fellowship (percent)

	Discipline of the fellowship							Total
	Che	Ear	Eco	Eng	Lif	Mat	Phy	
Researcher from the institution and other fellows	14	14	6	13	14	10	18	14
Only researcher from the institution	67	65	55	73	67	55	69	66
Only other fellows	4	3	4	1	5	9	3	4
No team work	15	18	35	13	15	26	9	16
Total	100	100	100	100	100	100	100	100
(n)	(314)	(227)	(137)	(254)	(948)	(103)	(449)	(2,432)

Che = Chemistry
Ear = Earth sciences
Eco = Economical, social and human sciences
Eng = Engineering sciences
Lif = Life sciences
Mat = Mathematics and information sciences
Phy = Physics

Question 1.8: Did/do the fellow work in a research team with colleagues from your institute and/or other fellows?

Source: Survey on fellows

As Table 45 shows, the research teams were set up on average by the fellow and six other researchers, of which five were local staff members from the host institution and one other fellow. The largest research teams with an average of seven local staff members and 1.5 other fellows were reported by supervisors in international organisations, usually Joint Research Centre Establishments.

In contrast to doctoral and post-doctoral fellows, experienced researchers awarded an EC grant worked less often in a team (74 percent as compared to 86 percent), and if they did so, the research team was built up on average by fewer team members.

Table 45
Number of Researchers and Fellows in the Research Team of the Fellow, by Discipline of the Fellowship (mean)

	Discipline of the fellowship							Total
	Che	Ear	Eco	Eng	Lif	Mat	Phy	
Number of researchers	5.3	4.6	5.4	6.6	4.5	5.6	5.7	5.2
Number of fellows	.6	.7	.6	.6	.7	1.1	.8	.7
Overall number of team members	5.9	5.2	6.0	7.2	5.2	6.7	6.5	5.9
(n)	(253)	(182)	(81)	(220)	(787)	(74)	(397)	(1,994)

Che = Chemistry
Ear = Earth sciences
Eco = Economical, social and human sciences
Eng = Engineering sciences
Lif = Life sciences
Mat = Mathematics and information sciences
Phy = Physics

Question 1.8: Did/do the fellow work in a research team with colleagues from your institute and/or other fellows?
Source: Survey on fellows

5.2 Language of Communication in the Host Country

It is generally assumed that English has more or less become the lingua franca of international communication in research. In Europe, French seems to be the only other language preferred as major language of communication with foreign researchers in the respective regions of Europe where it is the native language.

A short look at other European programmes might be in place in order to assess the frequency of foreign language use in the framework of European research fellowships. The ERASMUS programme is an exception in this respect among the European education and research programmes, because most mobile students were encouraged to use the respective host country language. According to surveys undertaken in the early 1990s, 40 percent of the courses taken abroad by ERASMUS students were taught in English, more than 20 percent in French, more than 15 percent in German and more than 20 percent in the remaining European languages. Mobile teachers in the framework of ERASMUS taught 61 percent of the courses completely or partly in English, 27 percent completely or partly in French, 13 percent in German, and 10 percent in Spanish. ERASMUS local directors of Inter-University Co-operation Programmes comprising student mobility used on average almost two languages in communication with their partners, among them 79 percent English, 48 percent French, 23 percent German and 15 percent Spanish (Teichler and Maiworm: ERASMUS Student Mobility Programmes 1991/92 in the View of the Local Directors. Kassel 1995).

Also, TEMPUS partners of Joint European Programmes used on average almost two languages with their partners, among them 90 percent English and a quarter each French and German. Asked about the frequency of the language used, English was estimated to make up for 72 percent of the communication with partners, French 13 percent, German eight percent and the remaining European languages together nine percent (Kehm et al.: Evaluation of the First Phase of TEMPUS 1990/91-1993/94. Kassel 1996).

Table 46
Language(s) Used for Professional Purposes During the Fellowship Period, by Host Country (percent)

	Host country																Total
	AT	BE	CH	DE	DK	ES	FI	FR	GB	GR	IE	IT	NL	NO	PT	SE	
Danish	0	0	0	2	40	0	0	1	1	0	0	2	1	0	0	0	2
Dutch	0	23	0	5	2	5	25	3	3	0	0	3	42	0	13	7	7
English	100	96	100	92	98	81	100	89	100	100	100	93	99	100	94	100	95
Finnish	0	0	0	1	0	0	50	0	0	0	0	0	0	0	0	0	0
French	33	70	60	13	8	19	25	97	12	20	11	24	10	0	13	29	38
German	100	10	28	70	0	3	50	12	7	20	11	15	12	0	0	14	16
Greek	0	2	0	0	2	2	0	2	4	60	0	0	0	0	0	0	2
Icelandic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Italian	0	6	15	6	2	6	0	8	4	0	0	92	4	0	0	0	11
Norwegian	0	1	0	0	0	0	0	0	0	0	0	0	1	75	0	0	0
Portuguese	0	2	0	1	0	0	0	1	2	0	0	1	3	0	88	7	2
Spanish	0	5	0	8	2	86	0	6	7	0	6	9	3	0	13	7	9
Swedish	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	29	0
Other	0	1	0	0	0	6	0	1	0	0	6	0	0	0	0	0	1
Total	233	217	203	197	156	208	250	220	142	200	133	238	174	175	219	193	185
(n)	(3)	(128)	(40)	(194)	(50)	(64)	(4)	(477)	(683)	(10)	(18)	(130)	(139)	(4)	(16)	(14)	(1,974)

Question 3.1.4: Which language did/do you use for professional purposes? If you use(d) more than one language, please state percentages.

Source: Survey on fellows

In the previous survey on European research fellows going abroad from the mid-sixties to the mid-eighties, fellows were asked the language "mainly used for professional purposes". English was named by 50 percent, French by 14 percent, German by eight percent and the remaining European languages altogether by seven percent as the major language. 21 percent named more than one "major" language, whereby, again, English was most frequently named. At that time, all fellows going to the United Kingdom and Ireland used English, the majority of fellows going to France used French, and the majority going to other European countries used English as the major language for professional purposes.

In this survey, recent European research fellows were asked more in depth about their language utilisation during the fellowship period in another European country. The responses show, as expected, that English was the most widely used language of European fellows during their research period abroad, but that other languages played a more important role in European research communication than it is widely assumed.

When asked to state all the languages used for professional purpose during the fellowship period abroad, European research fellows named on average almost two languages. Only in the United Kingdom and in Ireland, the majority of fellows used exclusively the host country language, i.e. English. Among the languages used for professional purposes, 95 percent named English, 38 percent French, 16 percent German, 11 percent Italian, while naming of other languages comprised altogether 23 percent. Only in Denmark, the Netherlands and Sweden less than half of the fellows did not use the host country language at least as an additional language of communication for professional purposes (see Table 46)

As fellows using more than one language for professional purposes abroad were asked to estimate the percentage of use, we can identify the overall frequency of professional utilisation of languages. At the first glance, these data seem to confirm to clear dominance of English, because 66 percent of the professional communication is reported to be in English, 19 percent in French and only 15 percent in all the remaining languages. Also supervisors stated in response to a corresponding question that on average 66 percent of their communication with fellows was in English, 20 percent in French and 14 percent in other languages.

One should bear in mind, though, that 37 percent of the fellows spent the fellowship period in the United Kingdom and Ireland. Of the fellows going to other European countries, thus, the use of English comprised on average only about half of the language use for professional purposes during the fellowship period abroad. As Table 47 shows, the host country language dominated

- not only in France (61 percent), but also in
- Spain (53 percent), and
- Italy (48 percent).

Also, the use of the host country language was by no means negligible in Portugal, Belgium (French or Dutch), Switzerland (German or French) and Germany.

Altogether, only about half of the European research fellows estimated their proficiency in the language predominantly used for professional purposes during the fellowship period as being good already at the time when they went abroad (1 or 2 on a scale from 1 = "excellent" to 5 = "poor"). At the end of the fellowship, 95 percent estimated their language proficiency abroad as good (see Table 48). It is worth noting that the proportion of ERASMUS students estimating their prior proficiency in the host country as good was also about 50 percent. As the proportion of European research fellows using a lingua franca in the host country is higher than among ERASMUS students, one could have expected a higher proportion of European research fellows to be strong in the foreign language at the time they went abroad.

Table 47
Percentage of Language(s) Used for Professional Purposes During the Fellowship Period, by Host Country (mean)

	Host country																Total
	AT	BE	CH	DE	DK	ES	FI	FR	GB	GR	IE	IT	NL	NO	PT	SE	
Danish	.0	.0	.0	.2	8.6	.0	.0	.1	.1	.0	.0	.6	.2	.0	.0	.0	.4
Dutch	.0	6.6	.0	.4	.0	1.0	.5	.4	.4	.0	.0	.3	11.9	.0	1.9	.4	1.6
English	53.3	59.5	65.9	61.6	87.1	38.7	92.5	34.4	92.2	71.5	96.4	39.6	83.0	72.5	53.1	93.0	66.1
Finnish	.0	.0	.0	.0	.0	.0	5.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
French	6.7	29.7	22.7	3.6	1.5	3.1	.5	60.8	2.0	3.0	1.4	5.6	1.2	.0	.6	1.7	18.8
German	40.0	1.6	9.4	31.2	.0	.3	1.5	1.4	1.3	5.8	1.7	3.5	1.8	.0	.0	.4	4.6
Greek	.0	.5	.0	.0	2.0	.2	.0	.4	.8	19.7	.0	.0	.0	.0	.0	.0	.5
Icelandic	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Italian	.0	.8	2.1	1.5	.2	1.3	.0	1.2	.6	.0	.0	48.3	.8	.0	.0	.0	4.0
Norwegian	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	27.5	.0	.0	.1
Portuguese	.0	.1	.0	.1	.0	.0	.0	.3	1.0	.0	.0	.2	.5	.0	43.1	.4	.8
Spanish	.0	1.1	.0	1.4	.2	53.2	.0	.9	1.4	.0	.3	1.9	.6	.0	1.3	.1	2.8
Swedish	.0	.0	.0	.1	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.1	.0
Other	.0	.1	.0	.0	.0	2.2	.0	.1	.0	.0	.3	.0	.0	.0	.0	.0	.1
(n)	(3)	(128)	(40)	(194)	(50)	(64)	(4)	(477)	(683)	(10)	(18)	(130)	(139)	(4)	(16)	(14)	(1,974)

Question 3.1.4: Which language did/do you use for professional purposes? If you use(d) more than one language, please state percentages.

Source: Survey on fellows

Table 48
Good Proficiency in the Predominately Used Language at the Host Laboratory, by Host Country (percent*)

	Host country																Total
	AT	BE	CH	DE	DK	ES	FI	FR	GB	GR	IE	IT	NL	NO	PT	SE	
Professional language at the beginning	67	59	63	46	53	53	50	53	41	50	56	49	50	50	50	36	48
Professional language at the end	100	95	90	90	100	95	100	93	97	90	100	94	96	100	94	100	95
Host country language at the beginning	100	26	30	12	2	27	0	28	40	0	61	13	8	25	6	7	27
Host country language at the end	100	53	55	53	29	77	25	85	96	30	100	84	22	67	81	21	76
(n)	(3)	(128)	(40)	(194)	(50)	(64)	(4)	(477)	(683)	(10)	(18)	(130)	(139)	(4)	(16)	(14)	(1,974)

* Categories 1 and 2 on a scale from 1 = "excellent" to 5 = "poor"

Question 3.1.5: How do you rate your proficiency in the predominantly used language, and in that of your host country (if different) at the beginning and at the end of your fellowship?

Source: Survey on fellows

25 percent estimated their proficiency in the host country language as good when they went abroad. This was true for more than two fifth of those spending the study period in the United Kingdom or Ireland and for about one fifth on average of those going to other countries. Upon return, almost three quarters, among them about half of those who had neither been in the United Kingdom nor in Ireland, rated their proficiency in the host country language as good.

5.3 Assessment of Research Conditions Experienced

Two questions posed in the fellows' questionnaire referred to the scientific supervision at the host institution. First, fellows were asked whether they had any problems of scientific nature with their supervisor at the host institution. Actually,
- 4 percent reported substantial problems, and
- 8 percent moderate problems, whereas
- 88 percent had no problems at all of scientific nature with their supervisor.

Among those fellows who mentioned substantial or moderate problems,
- 23 percent stated difficulties of no or little guidance and supervision;
- 19 percent had problems regarding decisions about the research methodology;
- 15 percent stated that the supervisor could not help because of different area of specialisation;
- 12 percent noted difficulties in planning, cooperation and coordination of research activities;
- 10 percent complained about little freedom to explore different lines of research;
- 7 percent reported that the supervisor was too busy or mostly absent;
- 11 percent named other problems.

Similarly, only three percent of the supervisors reported that they had substantial problems with their fellows. Also, eight percent reported moderate problems. Among those who stated problems,
- 38 percent complained about limited research experiences or scientific abilities of the fellow;
- 14 percent mentioned insufficient research results/outcomes;
- 11 percent problems regarding decisions about the research methodology;
- 8 percent perceived an inability of the fellow to do independent work;
- 8 percent stated that the fellow did not accept scientific advice;
- 6 percent mentioned difficulties of cooperation or coordination of research activities between the fellow and other researchers;
- 6 percent reported low motivation or other interests of the fellow; and
- 15 percent mentioned other problems.

Second, fellows were asked to rate the scientific supervision at the host institution on a scale from 1 = "excellent" to 5 = "poor". Actually, good ratings (1 or 2) were given by 72 percent of the fellows.

In both respects, the responses by the recent fellows were more positive than by fellows going abroad between the mid-sixties and the mid-eighties who had been surveyed in a previous study. Of the former, five percent had reported substantial and 13 percent moderate problems, while only 60 percent had rated the supervision as good (Teichler et al., 1990, pp. 79-81).

The European fellows were also asked in the recent survey to rate the co-operation with colleagues at the host institution as well as the work climate in general. The responses were

similar on average to those regarding the supervision. 75 percent each rated the co-operation with colleagues and the work climate at the host institution as good.

Finally, the fellows assessed the resources at the host institution which were made available to them. First, most European research fellows stated that they had the same access to the resources of the host institution as had the local staff. 11 percent observed some minor restrictions and three percent serious restrictions.

In this respect, the supervisors viewed the situation more favourable than the fellows. Only four percent stated some minor restrictions, and only a single out of almost 2,300 supervisors stated that his fellows had to face serious restrictions in access to the resources of the institution.

Finally, 59 percent of the fellows rated the quality of equipment at their work place as above average of the standards prevailing at the host institution. 33 percent assessed it as average, and only eight percent as below average.

Table 49
Fellows' and Supervisors' Assessment of the Research Conditions Experienced by the Host Institution, by Type of Programme (percent)

	Type of programme				Total	In comp.:
	HCM	Predec. of HCM	Other progr. starting since 1992	Other progr. starting prior 1992		Fellows mid-60s to mid-80s
Scientific supervision						
No problems according to fellows	91	88	89	84	88	81
No problems according to supervisors	93	89	87	87	90	**
Good quality according to fellows*	73	72	73	70	72	60
Social setting at workplace						
Good cooperation with colleagues*	72	77	76	76	75	**
Good work climate*	77	75	76	74	75	**
Resources for research						
Same access to resources as local staff						
– according to the fellows	88	88	84	85	87	86
– according to the supervisors	97	96	98	94	96	**
Above average quality of equipment						
– according to the fellows	58	60	56	60	59	**
– according to the supervisors	49	48	51	48	48	**
Average assessment	78	77	77	75	77	

* Categories 1 and 2 on a scale from 1 = "excellent" to 5 = "poor"

** Not asked for in previous survey

Source: Survey on fellows and survey on supervisors

In these cases, the respective assessments by the supervisors were slightly more moderate. 48 percent of the supervisors viewed the quality of equipment at the work place of the fellows they supervised above average of the standards prevailing at their institution. 43 percent rated them as average, and only nine percent as below average. Both, fellows and supervisors, agreed that the fellows had a better equipment at hand than the local staff on average.

Altogether, the assessment of the conditions for research conducted by European research fellows during the fellowship period abroad turned out to be very positive. It is worth noting that the ratings were more positive than those by fellows of previous decades which had been surveyed some years ago.

Table 49 indicates that the ratings do not differ substantially according to the type of programme. Fellows mobile in the framework of the Human Capital and Mobility programme rated the research conditions during their fellowship period as favourably as fellows mobile in the framework of specialised research programme.

Table 50
Fellows' and Supervisors' Assessment of the Research Conditions Experienced at the Host Institution, by Type of Fellowship (percent)

	Type of fellowship			Total
	Junior/ post-grad.	Senior/ post-doct.	Experienced researcher	
Scientific supervision				
No problems according to fellows	85	90	95	88
No problems according to supervisors	88	91	94	90
Good quality according to fellows*	69	73	84	72
Social setting at workplace				
Good cooperation with colleagues*	75	74	80	75
Good work climate*	74	76	83	75
Resources for research				
Same access to resources as local staff				
– according to the fellows	85	87	98	87
– according to the supervisors	95	96	97	96
Above average quality of equipment				
– according to the fellows	62	58	47	59
– according to the supervisors	38	39	44	48
Average assessment	75	76	80	77

* Categories 1 and 2 on a scale from 1 = "excellent" to 5 = "poor"

Source: Survey on fellows and survey on supervisors

The rating, though, varied somewhat according to the status of the fellows, as Table 50 indicates:

The scientific supervision of experienced researchers was assessed most positively both by themselves and their supervisors. Experienced researchers also rated the social set-

Table 51
Fellows' and Supervisors' Assessment of the Research Conditions Experienced at the Host Institution, by Selected Host Country
(percent)

	Host country													Total
	BE	CH	DE	DK	ES	FR	GB	GR	IE	IT	NL	PT	SE	
Scientific supervision														
No problems according to fellows	91	88	88	88	84	95	90	90	94	84	91	80	100	88
No problems according to supervisors	82	82	95	94	96	91	90	100	97	89	86	84	82	90
Good quality according to fellows*	64	78	68	76	76	71	76	50	67	65	76	56	71	72
Social setting at workplace														
Good cooperation with colleagues*	77	78	75	72	69	71	77	80	67	77	75	69	93	75
Good work climate*	76	85	74	86	70	71	78	50	83	72	78	56	86	75
Resources for research														
Same access to resources as local staff														
– according to the fellows	87	95	89	96	89	88	87	80	94	77	84	88	100	87
– according to the supervisors	94	94	96	94	98	97	98	86	97	87	91	100	100	96
Above average quality of equipment														
– according to the fellows	50	80	64	64	55	56	60	30	28	61	61	50	65	60
– according to the supervisors	54	53	46	49	44	49	48	87	54	51	39	29	53	49
Average assessment	75	82	77	80	77	77	78	73	72	74	76	68	83	77

* Categories 1 and 2 on a scale from 1 = "excellent" to 5 = "poor"

Source: Survey on fellows and survey on supervisors

ting at the workplace and the access to resources at the host institution most positively. As regards the quality of equipment, they viewed the equipment of their work place less often as above the average of the local staff. Their ratings were on average similar to that of their supervisors who on average rated the equipment their institution provided to experienced researchers as better than that provided to other fellows. One might argue that experienced researchers are likely to be provided the best research conditions at the host institution, whereby their assessment of the equipment might be more realistic than that by younger researchers.

- The scientific supervision for post-doctoral was viewed slightly more positive for fellows on the doctoral stage of training both by the fellows and the supervisors. The ratings of the social setting and the access to resources hardly differed according to the status of the fellows. The rating of the quality of equipment on the part of the supervisors was also more or less the same for both groups, while fellows not yet being awarded a doctoral degree assessed the equipment more positively.

We note small differences according to the subject area. The mean ratings according to the nine criteria employed in this survey ranged from 78 percent in chemistry to 74 percent in engineering. The only striking difference by field worth noting is the relatively cautious rating of the quality of supervision by engineering fellows (59 percent as compared to 72-76 percent in other subject areas).

The assessment of the research conditions at the host institution varies most strongly by host country (see Table 51). Most positive ratings referred to the research conditions in Sweden, Switzerland and Denmark. In contrast, the ratings were most negative on average regarding Portugal. The comparison of fellows' and supervisors' assessments shows an extremely striking contrast regarding Greece: while Greek supervisors rated the research conditions for their in-coming fellows more positively than supervisors of any other host country, fellows spending their fellowship period in Greece assessed the research conditions most negatively on average.

In contrast, we note only small differences by home country. The average ratings ranged from 80 percent in the case of fellows from France to 74 percent in the case of fellows from Denmark and Portugal. However, Danish fellows stated a good quality of supervision (52 percent) substantially less frequent than fellows from other countries (67-75 percent).

5.4 Social and Cultural Life Abroad

A substantial number of the European research fellows received social and professional support from their host laboratory while being abroad. About half each of the fellows stated that the host institution helped much with administrative matters (e.g. taxes, social security and registration) and with finding accommodation. More than one third of the host institutions helped, according to the fellows, as regards professional contacts outside the host institution, and almost one third with social contacts and activities in general.

More European fellows going abroad from the mid-sixties to the mid-eighties had reported in the previous survey that they were supported by their host institutions in finding accommodation (63 percent). Already in the prior survey, we had observed that support of this kind had declined over time. This trend obviously continued in recent years (50 percent).

In reverse, prior fellows less often reported substantial support in establishing professional contacts outside the host institution (23 percent). Thereby, we noted an increase over time. Most recently, this kind of support grew substantially to 38 percent.

Table 52 shows that Human Capital and Mobility fellows had somewhat lesser support as regards finding accommodation and as regards social contacts and activities than other fellows awarded a grant since 1987. The former findings might be explained by other factors,

i.e. the above mentioned change over time and the below discussed substantial lesser support to younger fellows in this respect. The latter finding however, i.e. the lesser support regarding social contacts and activities, seems to be specific to the HCM programme.

Experienced researchers reported most support in finding accommodation (61 percent) and in administrative matters (63 percent). More post-doctoral fellows than their younger colleagues experienced substantial support in finding accommodation (52 percent as compared to 46 percent). As regards the other topics addressed, no substantial differences of support was reported.

Table 52
Assistance by the Host Laboratory as Regards Practical and Social Matters, by Type of Programme (percent*)

	Type of programme				Total	In comp.:
	HCM	Predec. of HCM	Other progr. starting since 1992	Other progr. starting prior 1992		Fellows mid-60s to mid-80s
Finding accommodation	45	53	50	55	50	63
Social contacts and activities	27	38	33	31	30	35
Professional contacts outside host laboratory	37	37	40	38	38	23
Administrative matters (e.g. taxes, social security, registration,	50	46	50	48	49	50

* Categories 1 and 2 on a scale from 1 = "very much" to 5 = "not at all"

Question 3.2.2: Did/does the host laboratory help with any of the following aspects?

Source: Survey on fellows

Table 53
Assistance by the Host Laboratory as Regards Practical and Social Matters, by Duration of the Fellowship (percent*)

	Overall duration of the EC fellowship (months)					Total
	Up to 6	7 - 12	13 - 24	25 - 36	37 and more	
Finding accommodation	69	63	46	40	53	50
Social contacts and activities	37	34	29	28	30	30
Professional contacts outside host laboratory	31	37	39	37	40	38
Administrative matters (e.g. taxes, social security, registration)	59	57	47	42	44	49

* Categories 1 and 2 on a scale from 1 = "very much" to 5 = "not at all"

Question 3.2.2: Did/does the host laboratory help with any of the following aspects?

Source: Survey on fellows

The shorter the research period, the more often research fellows perceived substantial support regarding administrative matters, accommodation and social contacts. In contrast, fellows going abroad for at most half a year observed lesser support as regards professional contacts outside the host institution, as Table 53 shows. It is difficult to establish whether those staying for a long time, in fact, were provided with lesser support or whether those kinds of support which more likely concentrate on the initial period abroad are less highly appreciated by those staying a longer period and thus experiencing longer periods of moderate support because they are already expected to have accustomed to the host country at that time.

Most research fellows had frequent contacts and undertook varied activities in the host country. Actually,

- 69 percent stated that they had frequent contacts with colleagues of the host institution,
- 62 percent had frequent conversations with other people in the host country,
- 55 percent frequently visited museums or attended concerts, theatre plays, watched movies, etc.,
- 45 percent undertook frequent travels in the host country, and
- 39 percent often experienced joint leisure activities with host country nationals (see Table 54).

The frequency of activities is less linked to the duration of the period abroad than one might expect. Only those staying less than half a year abroad are less likely to undertake joint leisure activities with host country nationals.

Table 54
Frequency of Various Experiences and Activities During the Fellowship Period Abroad, by Type of Programme (percent*)

	Type of programme				Total
	HCM	Predec. of HCM	Other progr. starting since 1992	Other progr. starting prior 1992	
Personal contacts with colleagues from the host institution	66	73	65	72	69
Discussions/conversations with other people from the host country	57	68	69	63	62
Travelling in the host country	40	51	53	47	45
Visiting museums, attending concerts, theatre, cinema etc.	53	57	67	54	55
Joint leisure activities with host country nationals	35	44	49	40	39

* Categories 1 and 2 on a scale from 1 = "very often" to 5 = "none at all"

Question 3.2.1: Please state the frequency of the following experiences and activities during your fellowship period abroad.

Source: Survey on fellows

Asked about problems encountered during the fellowship period in another European country, most fellows reported few of them. Actually, not any single problem was often named. Rather, problems were named in six different areas each by about one tenth of the fellows responding: problems regarding

- financial matters (12 percent),
- administrative matters with the host laboratory (11 percent),
- administrative matters with local authorities (11 percent),
- accommodation (10 percent),
- living away from family (10 percent), and
- climate (10 percent).

Serious problems were less often reported regarding communication outside the host institution, professional contacts, lifestyle in the host country and food.

As compared to fellows going to other European countries from the mid-sixties to the mid-eighties, fewer recent fellows reported problems as regards professional and social contacts, but more regarding administrative matters and accommodation. Financial problems (9 percent) were reported in the past less often than by recent fellows (12 percent). Altogether, Table 55 shows that administrative, accommodation and financial problems were stated more often by Human Capital and Mobility fellows and other fellows going abroad since 1992 than by those going abroad around 1990.

Table 55
Problems Encountered During the Fellowship, by Type of Programme (percent*)

	Type of programme				Total	In comp.:
Problems regarding	HCM	Predec. of HCM	Other progr. starting since 1992	Other progr. starting prior 1992		Fellows mid-60s to mid-80s
Accommodation	11	8	11	11	10	9
Financial matters	15	10	15	8	12	9
Administrative matters with host laboratory	17	7	14	6	11	4
Administrative matters with local authorities	14	8	14	9	11	**
Food	6	3	3	6	5	1
Climate	12	7	6	9	10	2
Professional contacts	5	2	4	6	5	10
Communication outside laboratory	6	5	7	7	6	11
Lifestyle in the host	7	2	5	6	5	4
Living away from family	13	5	14	9	10	5

* Categories 1 and 2 on a scale from 1 = "very serious" to 5 = "no problems at all"

** Not asked for in previous survey

Question 3.2.3: Did/do you have problems with any of the following aspects during your fellowship?

Source: Survey on fellows

About three quarters of the European fellows felt well integrated into the academic life at the host institution. About half felt well integrated into the social life in the host country. This varied less by duration and by the status of respondents than one might expect. Younger fellows were more likely to be integrated in the social life. Table 56 points out, in addition, that integration into social life abroad was less often reported by Human Capital and Mobility fellows.

Table 56
Fellows' Integration into the Academic and Social Life of the Host Country, by Type of Programme (percent*)

	Type of programme				Total
	HCM	Predec. of HCM	Other progr. starting since 1992	Other progr. starting prior 1992	
As a researcher at the host institution	73	76	75	75	74
Social life in the host country	45	57	61	53	51

* Categories 1 and 2 on a scale from 1 = "completely" to 5 = "not at all"
Question 3.2.4: To what degree did/do you feel integrated into the academic and social life of the host country?
Source: Survey on fellows

In observing the various means of professional support and integration, of administrative support, and finally of support for social activities and social integration, we note some differences according to the host country, as Table 57 shows.

- Fellows going to Ireland were most pleased as regards professional support and integration as well as among those most pleased regarding social integration and activities.
- Social integration and activities were also strongly emphasised by fellows going to various southern European countries: Portugal, Spain and Italy.
- Portugal, however, was least favourably named as regards professional support and integration.
- Administrative support was most strongly praised by fellows spending their fellowship period in Denmark, Sweden and Switzerland while ratings were least positive by those going to Greece.
- Sweden was least favourably viewed as regards cultural and social experience as well as social integration.
- The three major hosting countries, i.e. the United Kingdom, France and Germany were, when compared to the other countries, neither very positively nor very negatively named in any of the three directions.

Altogether, however, the ratings varied to a lesser extent by host country than one might have expected.

Table 57
Fellows' Social and Cultural Activities and Living Conditions, by Selected Host Country (percent)

	Host country													Total
	BE	CH	DE	DK	ES	FR	GB	GR	IE	IT	NL	PT	SE	
Professional support and integration														
Personal contacts with colleagues from the host institution[2]	68	78	71	64	78	66	72	90	83	73	59	63	64	69
Professional contacts outside host laboratory[3]	34	35	35	53	29	37	40	20	50	37	41	19	43	38
Professional contacts[1]	96	100	93	92	95	94	97	100	100	95	96	87	93	95
Feeling integrated as a researcher at the host institution[4]	77	83	77	72	75	77	77	50	83	67	69	56	79	74
Mean	69	74	69	70	69	67	72	65	79	68	66	56	70	69
Administrative and financial support														
Finding accommodation[3]	55	55	65	65	50	39	45	40	39	61	69	53	93	50
Administrative matters (e.g. taxes, social security, registration, etc.)[3]	52	70	59	83	57	40	46	50	53	51	47	56	86	49
Accommodation[1]	94	93	87	86	95	90	99	100	89	85	88	75	100	90
Financial matters[1]	91	95	92	92	81	86	91	70	78	82	83	87	86	88
Administrative matters with host laboratory[1]	93	98	92	96	84	87	91	70	89	82	83	81	86	89
Administrative matters with local authorities[1]	89	93	94	86	83	82	95	70	89	79	89	87	79	89
Mean	79	84	81	85	75	71	76	67	73	73	75	73	85	76

(continued)

(Table 57 cont.)

	Host country													Total
	BE	CH	DE	DK	ES	FR	GB	GR	IE	IT	NL	PT	SE	
Social/cultural activities and social integration														
Discussions/conversations with other people from the host country[2]	57	50	53	60	73	61	64	70	78	73	51	94	43	62
Travelling in the host country[2]	52	51	38	50	49	44	42	70	67	55	54	69	36	45
Visiting museums, attending concerts, theatre, cinema etc.[2]	51	51	42	58	67	58	57	40	78	58	48	88	36	55
Joint leisure activities with host country nationals[2]	32	35	32	47	61	40	40	30	61	47	29	56	21	39
Social contacts and activities[3]	34	43	28	29	39	24	31	20	61	39	28	19	36	30
Food[1]	97	93	94	100	100	100	89	100	94	98	94	100	95	95
Climate[1]	80	98	94	88	95	94	87	100	89	95	89	100	100	91
Communication outside laboratory[1]	92	95	86	92	95	97	96	100	94	97	96	94	93	94
Lifestyle in the host country[1]	95	93	93	98	90	97	93	100	94	96	96	94	92	95
Living away from family[1]	90	95	89	91	93	91	87	90	82	91	89	100	85	90
Feeling integrated into social life in the host country[4]	54	34	40	42	72	53	52	60	61	61	36	75	29	51
Mean	66	67	63	69	75	70	67	71	78	74	65	81	60	68

1 Categories 3, 4 and 5 on a scale from 1 = "very serious problems" to 5 = "no problems at all"

2 Categories 1 and 2 on a scale from 1 = "very often" to 5 = "None at all"

3 Categories 1 and 2 on a scale from 1 = "very much" to 5 = "not at all"

4 Categories 1 and 2 on a scale from 1 = "completely" to 5 = "not at all"

Question 3.2.1: Please state the frequency of the following experiences and activities during your fellowship period abroad.

Question 3.2.2: Did/does the host laboratory help with any of the following aspects?

Question 3.2.3: Did/do you have problems with any of the following aspects during your fellowship?

Question 3.2.4: To what degree did/do you feel integrated into the academic and social life of the host country?

Source: Survey on fellows

6. The Bursary and Administrative Issues of the EC Fellowship

6.1 Application and Award

The European research fellows had applied for the fellowship on average 9.8 months before they actually went abroad. On average, they were notified about the award 3.4 months before they went abroad. Thus, the average duration of the award procedure was 6.2 months.

As will be discussed below (see Section 6.5) there are indications that the time of notification was even closer on average to the envisaged start of the fellowship periods. Some fellows postponed the fellowship period due to the late announcement of the awards. As Tables 58 and 59 indicate, the timing both of the application and the award varied substantially. While 15 percent applied more than one year before the actual departure, 25 percent applied only within six months prior to departure. While eight percent were already notified more than half a year before they actually went abroad, 16 percent went abroad after knowing the definite decision for at most one month, and four percent already went abroad before they were officially notified.

Table 58
Timing of Application for the EC Fellowship, by Type of Programme (percent and mean)

	Type of programme				Total
Months prior to departure	HCM	Predec. of HCM	Other progr. starting since 1992	Other progr. starting prior 1992	
13 or more months	20	8	21	9	15
10 - 12 months	42	35	31	27	35
7 -9 months	22	25	26	30	26
4 -6 months	13	28	20	30	22
Up to 3 months	3	4	2	4	3
Total	100	100	100	100	100
(n)	(713)	(205)	(132)	(618)	(1,668)
Timing of application (mean months prior to departure)	10.7	9.0	10.2	8.9	9.8

Question 2.2.7: When did you apply for the EC fellowship?

Source: Survey on fellows

Also, the duration of the award procedure for the applicant varied, i.e. the time span between application and notification of the award decision. As Table 60 shows, 60 percent were notified about the award within half a year after the application. A further 25 percent were notified within nine months, while 15 percent experienced an even longer time span between application and notification about the award decision.

Table 59
Timing of Notification About the Acceptance for the EC Fellowship, by Type of Programme (percent and mean)

Months prior to or after departure	Type of programme				Total
	HCM	Predec. of HCM	Other progr. starting since 1992	Other progr. starting prior 1992	
7 or more months prior	11	7	8	6	8
4 - 6 months prior	38	27	31	28	33
3 months prior	19	26	20	22	21
2 months prior	15	21	16	21	18
1 months or less prior	13	15	22	19	16
After departure	5	5	4	3	4
Total	100	100	100	100	100
(n)	(713)	(205)	(132)	(618)	(1,668)
Timing of notification (mean months prior to departure)	3.8	3.0	3.1	3.1	3.4

Question 2.2.8: When were you notified that you had been accepted for the EC fellowship?

Source: Survey on fellows

Table 60
Duration of Award Procedure, by Type of Programme (percent and mean)

Time span between application and notification about award	Type of programme				Total
	HCM	Predec. of HCM	Other progr. starting since 1992	Other progr. starting prior 1992	
Up to 3 months	11	21	13	25	18
4 -6 months	38	43	44	45	42
6 -9 months	32	24	20	18	25
10 - 12 months	14	10	13	8	11
13 months and more	4	2	11	4	4
Total	100	100	100	100	100
(n)	(709)	(205)	(131)	(587)	(1,660)
Duration of award procedure (mean months)	7.0	6.0	7.2	5.8	6.5

Question 2.2.7: When did you apply for the EC fellowship? Question 2.2.8: When were you notified that you had been accepted for the EC fellowship?

Source: Survey on fellows

Table 61 suggests that the period between application and actual departure became longer over the years. It was about eight months on average in the late 1980s and increased to almost ten months in 1993 (the data on 1994 tend to inflate the duration of the time span between application and award, because the survey included only those 1994 and 1995 fellows who had already applied in 1993 or even earlier). On the one hand, the duration of the award procedure grew somewhat. On the other hand, the period between notification of award and actual departure increased slightly as well.

Table 61
Timing of Application, Timing of Notification About the Award Decision and Duration of Award Procedure, by Year of Start of the EC Fellowship (mean months)

	Year of start									Total
	'87	'88	'89	'90	'91	'92	'93	'94	'95	
Timing of application	7.4	8.4	8.3	9.3	8.8	8.7	9.6	11.2	16.6	9.8
Timing of notification	2.3	2.8	2.6	3.1	3.0	3.1	3.3	3.9	6.8	3.4
Duration of award procedure	5.1	5.6	5.8	6.3	5.8	5.6	6.3	7.4	9.8	6.4
(n)	(20)	(94)	(118)	(150)	(174)	(207)	(432)	(436)	(37)	(1,668)

Question 2.2.7: When did you apply for the EC fellowship? Question 2.2.8: When were you notified that you had been accepted for the EC fellowship?

Source: Survey on fellows

Table 62
Differences Between the Fellowship Applied for and the Awarded, by Type of Programme (percent)

	Type of programme				Total
	HCM	Predec. of HCM	Other progr. starting since 1992	Other progr. starting prior 1992	
No	67	76	73	75	72
Duration of the fellowship awarded was shorter than applied for	27	14	14	16	21
Duration of the fellowship awarded was longer than applied for	0	1	1	2	1
Amount of grant was lower than applied for	4	7	6	4	5
Amount of grant was higher than applied for	1	2	4	2	2
Category of grant was lower than applied for	1	1	2	4	2
Category of grant was higher than applied for	1	1	1	1	1
Yes, other	2	2	6	2	3
Total	104	103	106	105	104
(n)	(826)	(261)	(148)	(698)	(1,933)

Question 2.2.9: Were there differences between your application and the fellowship awarded?
Source: Survey on fellows

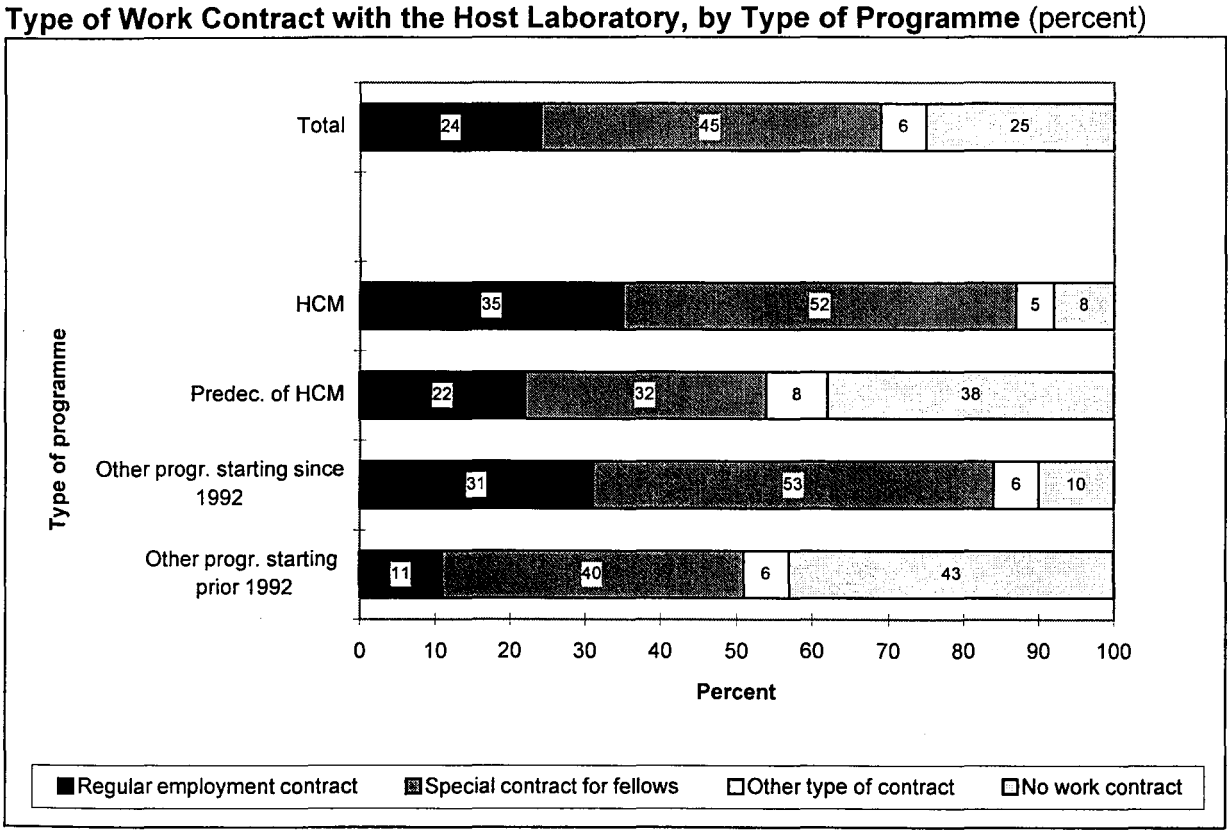
Almost three quarters of European fellows actually received the amount of support they had applied for. 21 percent were awarded support for a shorter period than they had applied for. This was even the case for 27 percent of the Human Capital and Mobility fellows, as Table 62 indicates. A closer look reveals that this discrepancy was most frequent in 1992 and 1993. Thereafter it declined.

There were some cases as well of a smaller monthly grant or an award of a lower category of fellowship. In a few cases, fellows even were supported for a longer period, in a higher category and with a higher amount of grant they actually had applied for.

6.2 Kind of Contract

With the implementation of the Human Capital and Mobility Programme on 16 March 1992, the European Commission decentralised the financial administration of the individual grants for fellows to the respective host institutions. While in earlier years each fellow was a contract-holder directly by the European Commission, the new regulations made the host institutions counterparts of the fellows. The funds awarded by the Commission were attributed directly to the host institution chosen by the applicant. One of the main reasons for the revision of the financial administration of fellowships was the aim to facilitate the regular employment of fellows under the same conditions of social security and taxes as local staff members. The new regulations did not only apply to HCM fellows but also to fellows of other sectoral RTD programmes.

Chart 10
Type of Work Contract with the Host Laboratory, by Type of Programme (percent)



Question 4.2: What type of work contract did/do you have with your host laboratory?

Source: Survey on fellows

Table 63
Type of Work Contract with the Host Laboratory, by Host Country (percent of HCM fellows and fellows of other programmes starting since 1992)

	Host country																Total
	AT	BE	CH	DE	DK	ES	FI	FR	GB	GR	IE	IT	NL	NO	PT	SE	
Regular employment contract (i.e. same as local staff)	0	37	56	12	52	36	100	46	32	0	45	4	43	100	0	38	35
Special contract for fellows	33	54	36	77	33	50	0	47	54	83	45	56	39	0	60	50	52
Other	33	4	0	3	0	6	0	4	5	0	0	10	10	0	20	0	5
No work contract	33	5	8	8	14	8	0	3	9	17	9	29	9	0	20	13	8
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
(n)	(3)	(57)	(25)	(90)	(21)	(36)	(2)	(237)	(342)	(6)	(11)	(48)	(70)	(1)	(5)	(8)	(962)

Question 4.2: What type of work contract did/do you have with your host laboratory?

Source: Survey on fellows

Actually the institutional administrators responsible for about two-thirds of the fellows surveyed reported that the fellows were provided the EC grants partially or entirely through the host institutions. If the host institutions were involved in providing the funds to the fellows, only a minority of them (41 percent) realised different legal statutory arrangements. In most cases, the institutions changed the arrangements over time. In less than ten percent of the cases, in which the host institution provided the EC fellowship to the fellows, it offered them a choice between different legal statutory arrangements. If the legal statutory arrangements did not vary and did not change over time, also about half of these institutions each provided funds only in the framework of a student or a fellow status and also almost half only an employee status, while the regular provision of a self-employment status was an exception.

Among the fellows responding, actually
- 45 percent had a special contract for fellows,
- 24 percent were regularly employed,
- 6 percent named other kinds of contracts, and
- 25 percent had no contractual relationship at all.

Until 1992, more than 40 percent of the fellows had no contract at all with the host institution. Up to 1990, about 40 percent had special contracts, while regular employment remained an exception. In 1991 and 1992, regular employment became somewhat more frequent, though it remained clearly less frequent than special contracts. With the introduction of the HCM scheme, only few fellows had not any work contract with the host institution. This applies both for HCM fellows and fellows of other programmes. As Chart 10 shows, about half of the fellows going abroad under these new conditions had a special contract for fellows, and about one third a regular employment contract.

There are obviously different policies in the various host countries as far as the contracts are concerned. Among the fellows supported by HCM or by other support programmes since 1992, the Nordic countries opted most often for a regular employment contract. In contrast, as Table 63 shows, preference of special contracts for fellows was given by host institutions in Germany (77 percent), Belgium, the United Kingdom (54 percent) and some of the Mediterranean countries as Italy, Greece and Portugal. Fellows without any work contract were most frequent in Italy (29 percent).

While post-graduate and post-doctoral fellows starting the fellowship under the new conditions established in 1992 were more or less treated in the same way by the host institutions, i.e. about one third each held a regular work contract and about half a special contract for fellows, the experienced researchers less often were employed on a regular basis (16 percent).

6.3 Kinds of Support Received and Financial Conditions

For the whole period of the fellowship, grantees receiving no other income were awarded a monthly flat-rate allowance depending on the type of fellowship (category). Since 1990, the differences in the living costs between the host countries were taken into account as a second criteria of fixing the monthly flat-rate amount. The fellowships are expected to cover subsistence and mobility expenses, as well as costs of publishing results and attending conferences or other scientific functions. Social security contributions and taxes have to be paid out of the fellowship. In cases where the research projects take place in a Joint Research Centre establishment or in a Joint Undertaking located in the country of origin or residence of the fellow, the monthly grants should be cut by 25 percent. The monthly flat-rate amounts were periodically reviewed.

Experienced researchers receiving other income from their usual activities, were awarded, for the whole period of the fellowship, an amount fixed by the Commission on the basis of a

proposal drawn up by the host laboratory and possibly by negotiations. The proposal should include mobility costs, wage costs including social security contributions, costs of publishing results and the costs of attending conferences or other scientific functions.

While the costs for return travel between home and host country has to be included in the mobility costs in the case of experienced researchers, fellows on a post-graduate or post-doctoral level who were awarded a monthly flat-rate are entitled to one flat-rate reimbursement of his/her outward and return travelling expenses between the country the host institution is located and the home country.

Asked about the kind of support they received from the European Community during the fellowship,
- 88 percent of the fellows stated that they received at least for a certain period a full monthly grant;
- 14 percent a partial monthly grant;
- 20 percent social benefits;
- 61 percent costs for travel to and from the host laboratory;
- 19 percent removal costs to and from host country;
- 14 percent funds for travel back to the previous institution during the fellowship;
- 24 percent travel costs to other laboratories in the host country;
- 57 percent travel costs to conferences, workshops, etc.
- 28 percent "bench" or other laboratory fees; and
- 3 percent received funds for other purposes.

As Table 64 shows, the kind of support differed somewhat by the year in which the fellowship started and the type of the fellowship. Post-graduate and post-doctoral fellows who started the research period abroad prior to 1992 slightly more often reported that they received a full monthly grant (94 percent as compared to 84 percent of fellows starting since 1992). On the other hand, the provision of social benefits and removal costs from home to host country was more frequent in recent years. The somewhat lower proportion of recent fellows reporting the provision of fees for laboratory costs might be due to the fact that since 1992 this kind of support is directly provided to the host institutions and not all fellows might be informed about this money transfer.

As compared to fellows of other types, experienced researchers reported less frequently the receipt of social benefits, removal costs, travel costs to other laboratories in the host country and travel costs to conferences and workshops.

It might be added here that the host institutions utilized also other funds to support research fellows from European countries. Actually, two-thirds of the EC fellows surveyed spent the research period at host institutions providing a grant to European fellows not supported by the European Commission. As a rule, the kinds of support received by these fellows were similar to those received by the EC.

The decentralisation of the financial administration of the fellowships since 1992 becomes clearly visible in the fellows responses to a question addressing the transfer of the funds supported by the European Commission. While the majority of fellows going abroad in the framework of HCM predecessors or other programmes implemented prior to 1992 stated a direct transfer of funds by the European Commission, the respective proportion was only about five percent of the fellows awarded support since 1992. In recent years, almost all of the various kinds of support were transferred by the host institutions to the fellows.

The fellows were asked to state the total monthly grant (including taxes, insurance etc.) which they received during the fellowship. Altogether,
- fellows on student and graduate level received an average monthly grant of 1.880 ECU,
- post-doctoral fellows 2.680 ECU, and

– experienced fellows 2.041 ECU.

Table 64
Kinds of Support Received, by Type of Fellowship and Year of Start (percent; multiple reply possible)

	Type of fellowship and year of start					Total	In comparison:
	Post-grad. prior 1992	Post-grad. 1992 and later	Post-doc. prior 1992	Post-doc. 1992 and later	Experienced researcher		Fellows mid-60s to mid-80s
Full monthly grant	95	85	92	83	80	88	88
Part monthly grant	6	19	8	21	20	14	10
Social benefits	13	26	15	27	8	20	*
Travel costs to and from host laboratory	61	56	60	62	59	61	56
Removal costs to and from host country	15	21	15	25	9	19	14
Travel back to previous institution during period of fellowship	16	10	12	16	16	14	16
Travel to other laboratories in host country	26	22	24	25	16	24	6
Travel to conferences, workshops etc.	61	52	55	57	39	57	25
"Bench" or other laboratory fees	30	28	36	24	23	28	7
Other	4	4	3	2	3	3	2
Total	327	322	320	341	273	328	292
(n)	(543)	(280)	(349)	(696)	(64)	(1,932)	(457)

* Not asked for in previous survey

Question 4.1: Which of the following was/is covered by funds from the EC and how was/is it transferred to you?

Source: Survey on fellows

Grants for experienced researchers were often provided as additional support to the regular monthly salary. Thus, it is not surprising to note that the average monthly grant was lower than those of post-doctoral fellows.

Actually,
- student and doctoral fellows supported by HCM and other fellowships since 1992 received a 17 percent higher fellowship than those awarded a fellowship around 1990,
- post-doctoral fellows received 40 percent more.

One has to bear in mind though that this increase was not only meant to cover living expenses abroad. To a substantial extent, the increased bursary was expected to cover taxes and social benefits which had been borne to a lesser extend by the EC support in the past.

Forty-four percent of the fellows reported that they paid income tax for their fellowship period (see Table 65). Notably those paid income tax who

- had a regular employment contract at the host institution. This also explains why a larger proportion of HCM and other recent fellows paid income tax than fellows awarded support until 1991,
- had other sources of income, notably a continued salary in the home country,
- spent their fellowship period in Portugal, Belgium, Germany and Ireland.

According to the administrators, almost half of the EC fellows spent their period abroad at host institutions which handled, if applicable, tax matters directly. This practice was most often reported for Irish, Swiss, Dutch and Danish host institutions and least often for Portuguese, Italian and German institutions. Most host institutions not handling tax matters tended to inform their fellows about tax regulations.

Table 65
Payment of Income Tax, Health Insurance, Pension Scheme and Unemployment Insurance During the Fellowship, by Type of Fellowship (percent)

	Type of fellowship			Total
	Junior/ post-grad.	Senior/ post-doct.	Experienced researcher	
Payment of income tax				
None	70	47	27	56
Only in host country	24	42	21	34
Only in home country	5	8	30	7
In host and home country	1	3	21	2
Payment of health insurance				
None	38	29	36	33
Only in host country	38	50	12	44
Only in home country	17	15	42	16
In host and home country	7	6	9	6
Payment of pension scheme				
None	74	62	67	67
Only in host country	15	24	9	20
Only in home country	9	11	21	11
In host and home country	2	3	3	3
Payment of unemployment insurance				
None	90	78	73	83
Only in host country	8	18	6	13
Only in home country	2	3	21	3
In host and home country	0	1	0	1
Total	100	100	100	100
(n)	(585)	(742)	(33)	(1,360)

Question 4.4: How much did/do you spend during your fellowship per month, on the following? Please state the amount in currency of your home country.

Source: Survey on fellows

Altogether,
- 67 percent paid for health insurance,
- 33 percent for a pension scheme, and
- 17 percent for unemployment insurance.

In all three categories, the proportion of those paying grew with the introduction of the HCM scheme, and payment were more likely to be made in the host country. Among those awarded a fellowship since 1992,
- 71 percent paid for health insurance,
- 39 percent for a pension scheme, and
- 25 percent for unemployment insurance.

Table 66
Proportion of Monthly Grant Paid for Income Tax, Health Insurance, Pension Scheme and Unemployment Insurance in the Host and Home Country During the Fellowship, by Type of Fellowship and Year of Start (mean percentages)

	Type of fellowship and year of start					Total
	Post-grad. prior 1992	Post-grad. 1992 and later	Post-doc. prior 1992	Post-doc. 1992 and later	Experienced researcher	
Income tax	3.4	7.5	5.9	12.2	14.9	8.2
Health insurance	2.8	5.6	3.3	4.9	3.9	4.2
Pension scheme	2.5	2.3	2.8	3.8	3.5	3.0
Unemployment insurance	.2	.7	.4	1.3	1.0	.8
Overall tax and social security costs	9.0	16.0	12.4	22.2	23.2	16.2
(n)	(364)	(221)	(202)	(540)	(33)	(1,360)

Question 4.4: How much did/do you spend during your fellowship per month, on the following? Please state the amount in currency of your home country.

Source: Survey on fellows

The total deductions from the fellowships for taxes, health insurance, pension and unemployment insurance amounted on average of all European fellows to 16 percent, thereby about 8 percent for taxes, about 4 percent for health insurance, about three percent for pension scheme, and less than one percent on average for unemployment insurance (see Table 66). On average, almost 80 percent of these various contributions were paid in the host country.

When we deduct the taxes and social benefits from the monthly bourse we note that the monthly allowance for living expenses
- was about 1,620 ECU on average around 1990 for students and doctoral fellows. The average amount since the introduction of the HCM scheme was about 1.720, i.e. an 8 percent increase,
- the respective figures were about 1,830 ECU and 2,280 ECU for post-doctoral fellows, i.e. an 25 percent increase.

While the increase of doctoral grant might reflect at most inflation, the post-doctoral grant, as noted above, was meant to be more attractive than in the past.

Due to differences in the payment of social benefits and taxes the monthly allowance for living expenses available from grants of the European Commission differed strongly by the type of work contract the fellows had with their host institutions. Taking into account only post-graduate and post-doctoral fellows supported by HCM or other programmes established since 1992, the average net allowance per months was

for doctoral fellows
- 1,509 ECU in the case of a regular employment contract;
- 1,828 ECU in the case of a special contract for fellows;
- 2,165 ECU for fellows with no work contract;

for post-doctoral fellows
- 2,005 ECU in the case of a regular employment contract;
- 2,430 ECU in the case of a special contract for fellows;
- 2,812 ECU for fellows with no work contract.

Table 67
Overview of Monthly Grant and Expenses for Social Benefits and Income Tax During the Fellowship, by Type of Fellowship and Type of Contract (mean in ECU, fellows in programmes established since 1992)

	Type of fellowship and work contract						Total
	Post-grad: Regular empl.	Post-grad: Special contract	Post-grad: No contract	Post-doc: Regular empl.	Post-doc: Special contract	Post-doc: No contract	
Total monthly grant	1,971	2,075	2,353	2,737	3,029	3,291	2,689
Income tax in host country	255	84	44	394	278	205	269
Income tax in home country	0	1	49	18	45	83	28
Health insurance in host country	121	85	29	141	101	41	101
Health insurance in home country	17	18	31	15	32	44	24
Pension scheme in host country	38	37	28	94	81	36	70
Pension scheme in home country	9	12	3	12	38	53	23
Unemployment insurance in host country	22	8	2	55	20	17	28
Unemployment insurance in home country	2	2	3	2	4	1	3
Total amount of taxes and social benefits	462	247	188	732	598	479	552
Net monthly grant	1,509	1,828	2,165	2,005	2,430	2,812	2,137
(n)	(70)	(95)	(24)	(192)	(258)	(33)	(672)

Question 4.3: How much was/is the total monthly grant (including taxes, insurances, etc.) you receive(d) during your fellowship?

Question 4.4: How much did/do you spend during your fellowship per month, on the following? Please state the amount in currency of your home country.

Source: Survey on fellows

As Table 67 shows, fellows who were employed on regular contracts or special contracts for fellows did not only state a lower average total monthly grant than fellows without any work contract, but also paid a substantially higher amount of the grant for social insurance and taxes. The lower total monthly grant of fellows with contracts is mainly due to the fact that the contributions by employers to social benefits were paid from the funds provided by the Commission for the fellowships. Altogether, it might be more attractive for fellows to go abroad without any work contract with the host institution.

In writing open comments about the research fellowship programmes, some of the administrators pointed out that fellows were misled by the announcements of the whole bursary. If the fellows were employed by the host institutions, they tended to be disappointed about the actual net support awarded.

Table 68
Additional Means Used by Fellows to Finance the Stay Abroad, by Type of Fellowship
(percent)

	Type of fellowship			Total	In comparison:
	Junior/ post-grad.	Senior/ post-doct.	Experienced researcher		Fellows mid-60s to mid 80s
Support from previous organisation	1	2	13	2	4
Support from host laboratory	1	1	3	1	2
Support from family, private means	7	6	11	7	9
Support from other sources	2	1	8	2	6
No additional support required	90	90	67	89	70
Total	102	101	102	102	101
(n)	(821)	(1,050)	(63)	(1,934)	(460)

Question 4.6: Which kind of additional means did/do you use to help finance your stay abroad during the fellowship?

Source: Survey on fellows

89 percent of the European fellows financed their research period in another country solely by the EC bursary. Actually,
- 7 percent had support from family and other means,
- 2 percent from their previous organisation,
- 1 percent from the host laboratory, and
- 2 percent from other sources (see Table 68).

On average, only 2.3 percent of the expenses during the research period were covered by other means than the EC bursary. In the previous survey on fellows going abroad from the mid-sixties to the mid-eighties, 30 percent had reported that they had used other means, and these means covered on average of all fellows 10 percent of the costs of the total expenses for the fellowship period abroad.

In the recent survey, undertaken in 1995/96, notably the experienced researchers used other means. 33 percent used other means which altogether covered 8.2 percent of the expenses during the fellowship period. Thereby, 13 percent had support from their previous organisation and 11 percent had family support or used their private means.

Altogether, 28 percent of the fellows responding to the recent study considered the support by the European Community as very generous and 39 percent as generous. 25 percent rated 3 on a scale from 1 = "very generous" to 5 = "inadequate", while 7 percent expressed dissatisfaction with the bursary by rating 4 and 5. The ratings were clearly more favourable than those expressed by fellows going abroad from the mid-sixties to the mid-eighties. In the earlier survey only 12 percent had viewed the support as very generous, while 17 percent had rated 4 or 5 (see Table 69).

Table 69
Fellows' Rating of the Level of Support Received from the EC, by Type of Programme
(percent)

	Type of programme				Total	In comparison:
	HCM	Predec. of of HCM	Other progr. starting since 1992	Other progr. starting prior 1992		Fellows mid-60s to mid-80s
Very generous	29	22	28	30	28	12
2	37	40	39	40	39	37
3	25	32	27	23	25	34
4	5	4	4	4	4	12
Inadequate	4	2	1	3	3	5
Total	100	100	100	100	100	100
(n)	(808)	(263)	(143)	(697)	(1,911)	(450)
Mean	2.2	2.2	2.1	2.1	2.2	2.6

Question 5.3: How do you rate the level of support you receive(d) from the EC while on fellowship?

Source: Survey on fellows

It is obvious that the increase of bursary for post-doctoral fellows since the establishment of HCM was favourably perceived by the fellows. In contrast, the small increase of doctoral fellowships which was likely to be smaller for living expenses than average inflation in Europe, was reflected in a slight decline of favourable assessments (see Table 70).

Fellows employed on regular work contracts rated the level of support more cautiously than fellows with other types or no work contracts. While about 70 percent of the latter rated the grants as very generous or generous, the respective proportion was "only" 60 percent among fellows with regular work contracts.

The supervisors rated the grants provided to the European fellows even more positively than the fellows. 77 percent of the supervisors as compared to 67 percent of the fellows rated it as "generous" (1 or 2). As Table 71 shows, the grants provided for HCM fellows or other fellows awarded support since 1992 were more frequently viewed as generous than the grants for fellows going abroad a few years earlier.

The administrators at the host institutions were asked to compare the monthly income of EC fellows to the monthly net income of local staff members at the same level. The administrators in charge of almost three quarters of the fellows stated that EC fellows had a higher fellowship than the net income of the local staff, and only the administrators of 13 percent of the fellows got the impression that the EC fellowship was lower than the net income of the

local staff. In comments made at the end of the questionnaire, notably some British administrators stated that the EC fellowships substantially surpassed the salaries of the local staff and thus created tensions within their institutions. As Table 70 shows, the ratings did not vary substantially according to the years in which the institutions hosted fellows. It might be added that only Italian hosts had a less favourable view regarding the financial support of the EC fellows.

Table 70
Fellows' Rating of the Level of Support Received by the EC, by Type of Fellowship and Year of Start (percent)

	Type of fellowship and year of start					Total
	Post-grad. prior 1992	Post-grad. 1992 and later	Post-doc. prior 1992	Post-doc. 1992 and later	Experienced researcher	
Very generous	32	27	24	30	11	28
2	39	40	42	36	39	39
3	21	23	29	26	43	25
4	5	5	3	5	3	4
Inadequate	2	4	3	4	3	3
Total	100	100	100	100	100	100
(n)	(535)	(276)	(342)	(683)	(61)	(1,897)
Mean	2.1	2.2	2.2	2.2	2.5	2.2

Question 5.3: How do you rate the level of support you receive(d) from the EC while on fellowship?

Source: Survey on fellows

Table 71
Supervisors' Rating of the Level of Support Provided by the EC to the Fellow and to the Host Institution/Laboratory, by Type of Programme (percent*)

	Type of programme				Total
	HCM	Predec. of HCM	Other progr. starting since 1992	Other progr. starting prior 1992	
Grants for fellows	83	65	77	76	77
Funds for the host institution/ laboratory	11	20	8	18	15

* Percent of categories 1 and 2 on a scale from 1 = "very generous" to 5 = "inadequate"

Question 4.4: How do you rate the level of support provided by the EC to the fellow and the host institution/laboratory?

Source: Survey on supervisors

In contrast, ratings of the funds provided by the European Commission to the host institutions turned out to be predominantly negative. Only 15 percent of the supervisors rated them as generous. As Table 71 shows, supervisors of most recent fellows assessed the support for the host institutions least favourably.

Table 72
Administrators' Assessment of the EC Fellows' Level of Income of as Compared to the Monthly Net Income of Local Staff Members at the Host Institution, by Period of Hosting EC Fellows (percent of administrators, weighted by number of EC fellows hosted)

	Period of hosting fellows			Total
	Only prior to 1993	Prior and after 1993	Only since 1993	
Substantially higher	44	64	49	58
Somewhat higher	29	11	23	16
About the same	17	10	21	13
Somewhat lower	7	13	5	11
Substantially lower	2	2	1	2
Total	100	100	100	100
(n)	(423)	(1,564)	(305)	(2,292)

Question 2.8: As compared to the monthly net income of local staff members at the same level, how would you consider the monthly income of the EC fellows?

Source: Survey on administrators

Table 73
Receipt of EC Funds for the Institute's/Laboratory's Expenses According to the Supervisors, by Type of Programme (mean)

	Type of programme				Total
	HCM	Predec. of HCM	Other progr. starting since 1992	Other progr. starting prior 1992	
No	27	38	29	32	31
Yes, but the funds are clearly below the expenses	39	26	49	32	35
Yes, funds appropriate to the expenses	34	36	22	36	34
Total	100	100	100	100	100
(n)	(931)	(385)	(174)	(942)	(2,432)

Question 3.9: Did/do you receive EC funds for the institute's/laboratory's expenses related to the fellowship?

Source: Survey on supervisor

Actually,
- 31 percent of the supervisors stated that they did not receive any funds for the institute's expenses related to the fellowship.
- 35 percent received funds which they viewed as clearly below the expenses, and
- 34 percent received funds which they considered as appropriate.

With the introduction of HCM and similar changes in other programmes, the number of supervisors became smaller who stated that they had not received any funds of that kind. Instead, the number of supervisors increased who rated the funds received as insufficient (see Table 73).

The host institutions' administrators of more than three quarters of the fellows stated that the host institution had received some contributions from the EC to cover parts of the research and administrative costs incurred. Although these contributions are regularly awarded since 1990, some administrators at institutions only hosting EC fellows since 1990 claimed that their institution has not received such funds (see Table 74).

Table 74
Receipt of EC Contributions for the Host Institutions' Administrative and Research Costs According to the Administrators, by Period of Hosting EC Fellows (percent of administrators, weighted by number of EC fellows hosted)

	Period of hosting fellows			Total
	Only prior to 1990	Prior and after 1990	Only since 1990	
Yes, for all fellows	32	60	65	61
Yes, for some fellows	25	14	19	16
No contributions received	43	25	16	23
Total	100	100	100	100
(n)	(84)	(1,421)	(766)	(2,271)

Question 3.1: Since 1990 the European Commission awarded contributions for the host institutions administrative and research costs. Did you receive such contributions?

Source: Survey on administrators

According to the administrators whose institutions were awarded institutional support,
- 56 percent of these funds were used for the fellows and their research work,
- 15 percent for the fellows' travel costs to other research institutions, conferences etc.
- 23 percent for administrative costs of the host institution, and
- 6 percent for other expenses.

The level of support provided by the European Commission for the institutional expenses was rated by the administrators as negatively as by the supervisors. Of those actually receiving institutional support, only 13 percent considered it as generous. As Table 75 indicates, British and Dutch administrators rated the support for their institutions most negatively.

Both, the supervisors and the administrators were asked about possible changes of support for the host institution. Actually, 60 percent of the supervisors suggested that all laboratory costs (material, equipment etc.) related to the hosting of fellows should be covered by the European Commission. The emphasis put on this suggestion hardly differs according to type of programme, status of fellow or year of start. However, it varies according to field of study: supervisors in physics suggested this less often (44 percent) than in other disciplinary areas (57-68 percent). Most noteworthy are differences according to country (see Table 76):

- Swiss and Portuguese supervisors most often viewed the financial support provided to the host institution as generous, and Swiss supervisors least often demand that all laboratory costs incurred for the fellows should be covered by the European Union. This is true, al-

though many Swiss supervisors actually state that they did not receive any funds for institution's expenses related to the fellows.

- In contrast, Greek, Dutch and Irish supervisors rated the funds made available to the host institutions least generous, followed by British and Swedish supervisors. Correspondingly, Irish, Greek and British supervisors most often suggested that laboratory costs related to the hosting of fellows should be covered by the European Union.

Table 75
Administrators' Rating of Level of Support Received from the EC as Subsidy for the Institution, by Country of Institution (percent of administrators, weighted by number of EC fellows hosted)

	Country of institution														Total
	BE	CH	DE	DK	ES	FR	GB	GR	IE	IT	NL	PT	SE	Other EFTA	
Very generous	0	0	1	2	0	0	1	0	6	3	1	0	0	0	1
2	4	20	15	2	32	22	9	0	9	6	8	0	13	0	12
3	53	60	73	75	57	62	17	94	53	48	33	67	63	67	43
4	12	17	5	13	6	10	29	6	6	8	22	0	0	0	18
Inadequate	31	3	6	10	4	5	44	0	25	35	37	33	25	33	27
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
(n)	(190)	(30)	(168)	(63)	(47)	(348)	(708)	(16)	(32)	(63)	(93)	(6)	(8)	(3)	(1,775)

Question 3.3: How do you rate the level of support you received from the EC as subsidy for your institution?

Source: Survey on administrators

One might conclude that the Swiss hosts are less concerned than other supervisors about supplementing the fellows' research work by their own institutional means.

The administrators were asked about the modes of institutional support they consider most appropriate. In response,

- the administrators of 54 percent of the fellows stated a preference of a fixed sum per fellow and year,
- 19 percent favoured a fixed proportion of the grant allocated, and
- 25 percent a reimbursement of the real costs incurred by the host institution.

The fixed sum suggested by the administrators was somewhat higher than 17,000 ECU on average per year. The proportion of the grant to be reserved for the host institution was suggested to be slightly above 25 percent on average. In their open comments at the end of the questionnaire, several administrators pointed out strongly that the financial support by the Commission should be restructured in terms of reducing the grants for the fellows and of increasing the institutional support.

Table 76
Supervisors' Assessment of Financial Support Made Available to the Host Institution, by Host Country (percent)

Receipt of EC funds	Host country																Total
	AT	BE	CH	DE	DK	ES	FI	FR	GB	GR	IE	IT	NL	NO	PT	SE	
No	33	29	52	42	36	19	17	25	30	29	24	42	28	100	28	35	31
Yes, but the funds are clearly below the expenses	33	31	25	28	30	47	33	34	39	64	52	31	36	0	33	24	35
Yes, funds appropriate to the expenses	33	40	23	30	33	34	50	41	31	7	24	27	35	0	39	41	34
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
(n)	(3)	(204)	(60)	(224)	(66)	(90)	(6)	(579)	(771)	(14)	(29)	(176)	(179)	(3)	(18)	(17)	(2,439)
Generous funds for the host institution/laboratory*	0	15	31	22	18	16	20	19	11	0	8	15	7	0	33	10	15
All fellow related lab costs should be covered by the EU**	100	52	37	54	39	57	67	41	80	80	93	50	69	67	59	76	60

* Percent of categories 1 and 2 on a scale from 1 = "very generous" to 5 = "inadequate"

** Percent of categories 1 and 2 on a scale from 1 = "strongly agree" to 5 = "strongly disagree"

Question 4.5: To what extent do you agree to the following statements? All lab costs (material, equipment etc.) related to the hosting of fellows should be covered by the EU.

Question 4.4: How do you rate the level of support provided by the EC to the fellow and the host institution/laboratory?

Question 3.9: Did/do you receive EC funds for the institute's/laboratory's expenses related to the fellowship?

Source: Survey on supervisors

6.4 Decisions Regarding the Duration of the Fellowship

As already reported, the actual fellowship period of the respondents was on average 20.8 months. Most of the fellows (77 percent) went abroad for the period originally requested in the application. Almost all of the remaining fellows reported that the duration of the fellowship awarded was shorter than applied for. Only one percent mentioned the award of a longer period. A shortening of the duration of the fellowship in the award decision of the European Commission was more frequent in the case of post-graduate and post-doctoral fellowships than in the case of fellowships for experienced researchers. Only each tenth of the latter were not awarded the period applied for (see Table 77).

Table 77
Differences of the Actual Period of the Fellowship from the Period Requested for, by Type of Fellowship (percent)

	Type of fellowship			Total
	Junior/ post-grad.	Senior/ post-doct.	Experienced researcher	
13 and more months shorter	2	0	0	1
7 - 12 months shorter	15	3	7	8
4 - 6 months shorter	3	5	0	4
1 - 3 months shorter	1	16	2	9
The length originally applied for	78	76	91	77
Longer than applied for	1	1	0	1
Total	100	100	100	100
(n)	(744)	(981)	(56)	(1,781)

Question 2.2.9: Were there differences between your application and the fellowship awarded?
Source: Survey on fellows

Table 78
Application for an Extension of the Fellowship, by Type of Programme (percent of fellows already completed the fellowship)

	Type of programme				Total
	HCM	Predec. of HCM	Other progr. starting since 1992	Other progr. starting prior 1992	
No	85	65	87	55	68
Yes, but it was not granted	8	17	9	14	12
Yes, extension was granted	7	17	4	31	20
Total	100	100	100	100	100
(n)	(448)	(269)	(68)	(649)	(1,434)

Question 1.2.4: Did you apply for an extension of the fellowship?
Source: Survey on fellows

Twenty percent reported that they had successfully applied for an extension of the fellowship. They were granted an average extension of 9.2 months. Thus, the average fellowship period for all fellows was extended for 1.6 months. In addition, 12 percent of the fellows had applied for an extension of the fellowship, but the extension was not granted.

As Table 78 shows, applications for an extension of the fellowship were considerably more frequent among fellows awarded a grant prior to the implementation of HCM in 1992. Taking into account only fellows who had already completed the fellowship, about 40 percent of the respondents awarded the grant prior to 1992 applied for an extension whereas the respective proportion was only about 15 percent of the fellows awarded a grant since 1992. This development might be due to the fact that in recent years the fellowship period for post-graduate and post-doctoral fellows were usually fixed to two years, whereas the earlier years were characterised by a high variety in the length of the fellowships and a substantial proportion of fellowships initially awarded for less than two years.

Table 79
Appropriateness of the Duration of the Fellowship, by Type of Programme (percent)

	Type of programme				Total
	HCM	Predec. of HCM	Other progr. starting since 1992	Other progr. starting prior 1992	
Should have been shorter	0	0	1	0	0
Appropriate	59	67	49	57	59
Up to 6 months longer	17	13	11	19	17
7 - 12 months longer	21	17	34	20	21
13 and more months longer	2	1	5	4	3
Total	100	100	100	100	100
(n)	(810)	(269)	(149)	(690)	(1,918)

Question 1.2.5: Was/is the actual period of your fellowship appropriate?
Source: Survey on fellows

Altogether, 41 percent of the respondents hold the view that the actual period of the fellowship should have been longer. On average, they would have liked 3.8 additional months abroad. Thus, a duration of 24.6 months was considered as appropriate. As Table 79 shows, HCM fellows considered the actual period of their fellowships more often as appropriate than fellows in other programmes, and therefore less often applied for an extension.

Taking all information together, the following mean data regarding the duration of the fellowship period apply to the fellows replying to the questionnaire (see Table 80):
- 21.0 months were applied for by the fellows;
- 19.7 months were granted initially;
- 1.6 months extension were granted;
- 0.3 months of the granted period actually were not taken;
- 20.8 months were actually spent on fellowship (including extensions);
- 24.6 months were considered appropriate by the fellows;
- 24.9 months were considered appropriate by the supervisors.

Table 80
Measures of Duration of the EC Fellowship, by Type of Fellowship (mean)

	Type of fellowship			Total
	Junior/ post-grad.	Senior/ post-doct.	Experienced researcher	
Months applied for	24.2	19.1	10.5	21.0
Months originally granted	22.1	18.4	9.8	19.7
Months extension granted	2.5	1.0	.7	1.6
Months not taken	.2	.4	.0	.3
Months actually spent on fellowship	24.1	18.9	10.4	20.8
Appropriate months (fellows)	29.2	21.8	11.8	24.6
Appropriate months (supervisor)	28.2	23.0	12.7	24.9
(n)	(1,006)	(1,257)	(68)	(2,331)

Question 1.2.5: Was the actual period of your fellowship appropriate?

Question 3.8: Was/is the actual period of the fellowship appropriate for the successful completion of the project?

Source: Survey on fellows and survey on supervisors

The perceptions of fellows and supervisors about the desirable length of the fellowship did not differ much from each other. Taking into account only fellows and supervisors who both returned the questionnaire, the appropriate period considered by supervisors was 0.8 months longer than those considered by the fellows (25.6 and 24.8 months). Thus we can assume that by and large a two years period is viewed as suitable for the successful completion of the research projects.

As could be expected, the average duration of the actual period but also the period desired differed by the type of fellowship awarded. Post-graduate fellows reported on average the longest period (24.1 months), whereas post-doctoral fellows spent 18.9 and experienced researchers 10.4 months on fellowship. Experienced researchers more frequently spent the period originally granted; they less frequently applied for an extension and finally conceived a smaller gap between desirable and actual fellowship period. In contrast to the findings of the previous study, considerable differences between post-graduate and post-doctoral fellows can be observed. The former spent a longer period abroad, more often applied for an extension and conceived a larger gap between actual and desirable duration of the fellowship (see Table 80).

The conceived appropriate duration was on average
- 11.8 months according to the view of experienced researchers;
- 29.2 months according to the view of doctoral fellows; and
- 21.8 months in the view of post-doctoral fellows.

The actual average duration of the fellowship period varied only slightly between 1987 and 1993. Thus, it is not surprising to note that also the duration considered as suitable by the respondents was more or less constant over the years.

Five percent of the fellows discontinued the fellowship mainly for academic or professional reasons (67 percent of those discontinuing the fellowship) and on the basis of their own decision (72 percent). A further four percent of the fellows interrupted the fellowship for an av-

erage period of 4.5 months. About one third of these fellows interrupted the stay abroad because the extension of the grant was not yet decided when the previous period of support ended. A further third each stated academic or personal reasons. The incidence of interruption or discontinuation of the fellowship period is not associated with any of the parameters (duration, discipline, country, type of fellowship and year of start) examined in this study.

6.5 Administrative Problems

Fellows were asked to rate problems they had regarding the application, regarding the timing decisions and support as well as regarding the financial administration. As Table 81 shows, 12 percent noted serious problems with respect to the contact with the European Commission. Among the fellows going abroad from the mid-sixties to the mid-eighties who had responded to the previous survey, only 5 percent noted respective problems.

Administrative processes with the host institutions or other academics prior to the application did not pose any noteworthy problems. Only two percent of the fellows each reported problems in contacting the host institutions, in being accepted by the host institutions and in obtaining external references. Problems of that kind also were reported by very few of the fellows responding to the previous survey.

About one quarter of the recent fellows, however, reported serious problems regarding the application for an extension of the fellowship. This proportion was more than twice as high than among the fellows going abroad between the mid-sixties and mid-eighties who responded to the previous survey (see Table 81).

The timing of the decision-making process and its implementation were most seriously criticised:
- 37 percent stated serious problems as regards the timing of the award decision;
- 27 percent as regards the timing of the arrival of financial support; and
- 21 percent regarding the timing of the extension decision.

Again, these critiques were voiced about twice as often by recent fellows as by those responding to the previous survey. Notably, the rating of serious problems regarding the timing of the award decision grew over time: 16 percent among the fellows surveyed before stated serious problems of that kind, 29 percent of the recent respondents who went abroad around 1990, and even 43 percent of the HCM fellows and other fellows awarded the fellowship since 1992. In the previous survey, we had noted that problems felt regarding the late decision were frequently voiced by persons who eventually decided not to accept the fellowship awarded.

Actually, the duration of the award decision, i.e. the time-span between application and notification about the award, did not continuously grew according the brevity of the period between information about the award decision and actual departure. It certainly fits the general assumption that those being informed at most one moth before departure (46 percent) considered the timing of the award decision more often as a problem than those being informed three months in advance (28 percent). On the other hand, those being informed more than half a year prior to the departure criticised the timing of the award decision frequently (43 percent), and those informed about 4-6 months before departure (31 percent) slightly more often than those being informed three months in advance. These findings suggest that a certain proportion of those departing more than three months after the notification about the award actually had got their information on very short notice and postponed their departure, because the time span between notification and envisaged departure turned out to be too brief for them.

Table 81
Administrative Problems Encountered During the Fellowship, by Type of Programme
(percent*)

	Type of programme				Total	In comparison:
	HCM	Predec. of of HCM	Other progr. starting since 1992	Other progr. starting prior 1992		Fellows mid-60s to mid-80s
Problems regarding application						
Initial contact with European Commission	15	12	12	9	12	5
Contacting host laboratory	1	2	1	3	2	3
Being accepted by host laboratory	2	2	0	2	2	2
Obtaining outside references	1	2	2	3	2	2
Application for extension	20	35	30	28	26	11
Problems regarding timing of administration						
Timing of award decision	44	31	43	28	37	16
Timely arrival of financial support	27	31	31	25	27	15
Timing of extension decision	18	27	19	22	21	11
Problems regarding financial administration						
Reimbursement of travel claims (to congresses etc.)	12	11	15	11	12	9
Reimbursement of removal costs	17	13	17	12	15	8
Reimbursement of medical costs	6	8	4	8	7	5
Payment of "bench" and other laboratory fees	10	7	9	6	8	5
Payment of health	6	5	6	6	6	2

* Categories 1 and 2 on a scale from 1 = "very serious" to 5 = "no problems at all"

Question 5.2: Did/do you have problems with the following aspects?

Source: Survey on fellows

The frequency of serious problems noted is most noteworthy in respect to the extension of fellowship. As only 28 percent filed an application for extension, a report of serious problems regarding the application for extension by 26 percent and regarding the timing of extension by 21 percent suggests that extension is generally viewed as extraordinarily problematic.

Table 82 shows, first, that some of those who had not applied for the extension of a fellowship actually stated serious problems linked to the extension process. One might assume that they have got informed of problems other fellows had faced. Second, as one might expect, the majority of those who had applied for and had not been granted an extension stated serious problems regarding the application for an extension. Also, almost half stated problems regarding the timing of this decision. Third, even among those actually awarded an extension, about one quarter stated serious problems as regards the application and almost one third as regards the extension decision.

Table 82
Administrative Problems Encountered During the Fellowship Regarding Extension of the Fellowship Period, by Type of Programme (percent*)

	Application for an extension of the fellowship			Total
	No	Yes, but it was not granted	Yes, extension was granted	
Application for extension	13	68	26	26
Timing of extension decision	8	46	31	21

* Categories 1 and 2 on a scale from 1 = "very serious" to 5 = "no problems at all"
Question 5.2: Did/do you have problems with the following aspects?
Source: Survey on fellows

Serious problems regarding payments and reimbursements, for example reimbursement of travel costs or payment of health insurance, were less often stated than those regarding the timing of the award decision and the financial support. The statement of serious problems ranged from six percent regarding payment of health insurance to 15 percent regarding reimbursement of removal costs.

In the past, some of these reimbursements and payments had been handled by the European Commission, while in recent years the management of these processes was completely moved to the host institutions. This decentralisation does not have reduced the problems involved in the eyes of the fellows. Recent fellows stated serious problems of this kind almost twice as frequent as fellows responding to the previous survey.

Table 83
Administrative Problems Encountered During the Fellowship Regarding Reimbursement and Payments, by Type of Contract (percent*)

	Type of work contract with host laboratory				Total
	Regular employment contract (i.e. same as local staff)	Special contract for fellows	Other	No work contract	
Reimbursement of travel claims (to congresses etc.)	10	12	16	12	12
Reimbursement of removal costs	19	14	19	10	15
Reimbursement of medical costs	6	6	10	8	7
Payment of "bench" and other laboratory fees	8	7	12	8	8
Payment of health insurance	6	4	13	9	6

* Categories 1 and 2 on a scale from 1 = "very serious" to 5 = "no problems at all"
Question 5.2: Did/do you have problems with the following aspects?
Source: Survey on fellows

It is interesting to note that the problems encountered by fellows regarding payments and reimbursements did not vary substantially according to the type of contract. Those regularly

employed did not face fewer of these problems than those contracted as fellows as those without any contract, as Table 83 shows.

Statements of serious problems did not differ substantially in most respects according to the status of the fellows. As the only exception, we note that experienced researchers did not state serious problems regarding the extension of the fellowship, because most of them obviously were not interested in an extension.

The problems varied substantially according to the host country. As Table 84 shows, fellows who had spent the fellowship period in Sweden noted least of such administrative problems and those going to Ireland second least. In contrast, those who went to Portugal noted most often serious problems, followed by those who spent the fellowship period in Italy and Spain. As one might expect, problems of payment and reimbursement varied more according to host country than the other problems which might be at most indirectly linked to the activities of the host institutions.

The supervisors were asked to express their views regarding administrative matters only in respect to the application process. They voiced very strong criticism of the application process in response to questions posed:
- 41 percent considered the preparation of the application as too time-consuming,
- 55 percent considered the selection criteria as not sufficiently transparent, and
- 61 percent viewed the application and award procedure as too long.

The critique voiced by supervisors varied somewhat according to the type of programme (see Table 85) and according to the status of the fellows. Differences, though, were most striking by the host country: Portuguese and Greek supervisors criticised the application procedures substantially less than supervisors from other European countries.

The administrators were asked as well to state problems they faced in co-operation with the European Commission. As Table 86 shows, the late timing of the arrival of financial support was stated most often as a problem. The administrators in charge of 27 percent of the fellows stated problems in respect to the arrival of funds for the fellows, i.e. about the same proportions as that among the fellows stating these problems. Late arrival of funds for the institution was stated even more frequently as a problems (by administrators in charge of 35 percent of the fellows).

Administrators noted some problems in communication with the European Commission as well:
- 10 percent in establishing initial contacts with the Commission,
- 20 percent in identifying responsible officials in the Commission,
- 19 percent in receiving the necessary information from the Commission, and
- 12 percent in providing themselves the information requested by the Commission.

At the end of the questionnaire, administrators were asked to provide further comments. In respect to administrative issues, administrators most often criticised that they were forced to advance money in order to provide grants to the fellows and to cover the institutional costs - notably at the beginning of the fellowship and at the time of its completion. In addition, some respondents underscored difficulties they faced in getting in touch with persons at the Commission as well as regarding the amount of paperwork needed to be awarded support.

In comparison, few administrators reported administrative problems in dealing with the fellows. Less than ten percent each reported frequent problems due to missing documents for the contract, missing bank account numbers for money transfer, or due to insufficient documentation of travel expenses. Half of the administrators, however, stated problems due to the late notification of the start of the fellowships - again a problem hardly attributable to the fellows, but rather to the Commission's late award decision.

Table 84
Administrative Problems Encountered According to the Administrators by Fellows During the Fellowship, by Host Country (percent*)

	Host country																Total
	AT	BE	CH	DE	DK	ES	FI	FR	GB	GR	IE	IT	NL	NO	PT	SE	
Initial contact with European Commission	0	11	15	11	14	10	0	11	14	0	6	13	12	0	0	0	12
Contacting host laboratory	0	3	2	1	0	0	0	1	2	10	0	1	3	0	0	0	2
Being accepted by host laboratory	0	3	0	2	0	0	0	2	1	20	0	2	4	0	0	0	2
Obtaining outside references	0	4	0	2	2	0	0	2	2	0	0	5	0	0	13	0	2
Application for extension	0	21	26	22	22	31	0	32	28	14	29	24	11	0	38	0	26
Timing of award decision	67	36	46	36	45	38	25	37	36	30	33	33	39	0	33	29	36
Timely arrival of financial support	100	26	34	29	30	47	25	29	22	30	22	34	24	50	40	21	27
Timing of extension decision	0	15	29	13	19	23	50	27	22	29	0	23	6	0	25	0	21
Reimbursement of travel claims (to congresses etc.)	0	16	16	14	7	8	25	15	8	0	7	22	8	25	40	0	12
Reimbursement of removal costs	0	16	9	14	14	22	0	21	10	0	19	20	14	0	11	0	15
Reimbursement of medical costs	0	5	6	7	5	7	0	8	5	11	0	12	8	0	29	0	7
Payment of "bench" and other laboratory fees	0	6	7	4	3	13	0	6	12	0	0	11	2	50	0	0	8
Payment of health insurance	0	3	6	8	0	9	0	8	3	10	0	5	9	0	43	10	6

* Categories 1 and 2 on a scale from 1 = "very serious" to 5 = "no problems at all"

Question 5.2: Did/do you have problems with the following aspects?

Source: Survey on fellows

Table 85
Supervisors' Assessment of Administrative and Financial Matters, by Type of Programme (percent*)

	Type of programme				Total
	HCM	Predec. of HCM	Other progr. starting since 1992	Other progr. starting prior 1992	
Preparation of the application is too time-consuming	43	50	39	36	41
Selection criteria are not sufficiently transparent	56	60	53	52	55
Overall application and award procedure is too long	64	61	60	58	61

* Categories 1 and 2 on a scale from 1 = "very serious" to 5 = "no problems at all"

Question 4.5: To what extent do you agree to the following statements?

Source: Survey on supervisors

Table 86
Problems Encountered According to the Administrators in Dealings with the European Commission, by Period of Hosting EC Fellows (percent* of administrators, weighted by number of EC fellows hosted)

	Period of hosting fellows			Total
	Only prior to 1993	Prior and after 1993	Only since 1993	
Initial contact with the European Commission	11	10	8	10
Identifying responsible official in the Commission	25	18	23	20
Receiving necessary information from the Commission	17	19	21	19
Timely arrival of funds for the fellows	32	27	27	28
Timely arrival of funds for your institution	29	38	28	35
Provision of information requested by the Commission	15	10	16	12
Total	100	100	100	100
(n)	(360)	(1,460)	(268)	(2,088)

* Categories 1 and 2 on a scale from 1 = "very serious" to 5 = "no problems at all"

Question 4.1: Did you have any problems with the following?

Source: Survey on administrators

6.6 Desire of Certification and Continuing Contacts After the Fellowship

Although there is no principal doubt about the value of scientific and cultural experiences acquired in a foreign country, it is often felt that this special kind of experiences and related competencies are not highly enough valued by private and public employers. As possible strategies to overcome this dissatisfying situation the provision of a special certificate, the increase of public awareness or the creation of a significant name as a symbol for EC fellowships was discussed in the European Commission. In order to find out the views of the fellows, they were confronted with these strategies by a respective question. Altogether,

- 53 percent stated that the increase of public awareness would be an appropriate activity of the European Commission in order to increase the value of EC fellowships;
- 45 percent suggested the provision of special certificates for participants;
- 12 percent the creation of a significant name as a symbol (see Chart 11);
- 9 percent recommended other activities; and
- 15 percent however, did not respond to the question.

It is not surprising to note that the proportion of fellows who desired more activities of the European Commission to increase the value of the fellowships increased the longer the research period abroad lasted. On the other hand, no remarkable differences in this respect can be observed between young and experienced researchers.

In addition, fellows were asked to state the kind of continuing contacts with the European Commission desired after the fellowship. Altogether,

- 63 percent suggested the provision of a newsletter by the European Commission;
- 39 percent the use of electronic news/notice boards;
- 25 percent meetings;
- 15 percent an alumni association;
- 4 percent other means; and
- 11 percent stated that they did not want continuing contacts.

A proportion of about 90 percent of fellows wishing to continue the contacts with the Commission in one or the other way looks impressive. It underlines the overall satisfaction with the fellowship. Furthermore the interest in continued contacts could be viewed as an indicator of the high identification with European research co-operation.

Chart 11
Fellows' Suggestions for a Significant Name for the EC Fellowships

A big Europe for young researchers
Academic Fellow of EC (AFEC)
ARISTOTELES or DIOSKORIDES
Career award
CEC Research Fellow
CHARLEMAGNE
dECcorated Fellow
Dipl. Ing. EU, Dr. EU, M. Sc. EU,....
E.C. DEGREE in ...
E.C. FELLOW
E.C. MOBILITY DEGREE
E.C. Researcher (ECR)
E.C. fellow
EC Alumnus
EC Fellow
EC fellow scientist
EC fellow STAR
EC Fellowship Diploma (or certificate)
EC Fellowships
EC Fellowships Association
EC Life Sciences Research Fellowship
EC Master
EC thesis diploma
EC-Fellow
EC-Post-Doctoral Fellows
ECFel
Einstein
EKU European Knowledge United
EMBO-fellowship (known all over the world)
ERF European Research Fellow
ERFG (EUROPEAN RESEARCH FELLOW)
EU Fellowship
EU RESEARCH FELLOW
EU Researcher
EUREBUS-European Union Research Bursaries
EUREKA SCHOLARSHIPS
Euro Fel
Euro Science Fellow(ship)
Euro-Post-Doc
Euro-scientists
EUROFELLOW
EUROFELLOWSHIP
EUROGRAD`S
EUROLINK, EUROMIGRATION
European Academy of Sciences Fellowships
European Commission Scientific Fellowship (ECSF)
European Community Fellow (ECF)
European Community Research Fellow
European Doctor
European doctorate
European Fellow (EF)
European Grants For Excellence
European Post-Doctoral Fellowship Award
European Postdoctorate
European Research (Junior or Senior) Fellow
European Research Fellow (ERF)
European Scientist or European Researcher
European Union Research Fellowship (E.U.R. fellowship)
EUROPOSTDOC/EUROASSISTENT
EURORESEARCH
Euroresearcher
EURORESEARCHLINK
EUROSHIP
EUROSKILL
Experienced European
F.E.C. (Fellow of European Community)
FELLOWSHIP FOR EUROPEAN RESEARCHER
Force of young research scientist (F.Y.R.S.)
Institute of EC fellows
International experienced EC research fellow
Jean Monnet Fellowship
JES/SES (Junior/Senior EUROPEAN SCIETIST)
Max Peruz
Participant in EC Research training fellowship
PLATO
Progress
R.F.E.C. (Research Fellow of the European Community)
Research for a better Europe
ROBE Research Opportunities Before Employment
Scholasticus europeus
Schumann fellow
SCIENCE FOR EUROPE FELLOWSHIP
SFEU - Scientific fellow of the European Union
Something that plays with the words "Mobility" and "EC"
Specialisation in EC Research LAB
Von Humboldt Fellow
Winston-Churchill-fellowship
WWT (We work together)

Source: Survey on fellows

7. Outcomes

7.1 Quality Assessment by Supervisors

Supervisors were asked to rate the quality of research work conducted by the European fellows during their fellowship period at the host institution in comparison to the standards prevailing at the host institution. The ratings were impressively positive:

- 25 percent viewed the fellows as much above average,
- 47 percent somewhat above average,
- 22 percent as average, and
- only 7 percent somewhat or well below average (i.e. 4 or 5 on a scale from 1 = "much above average" to 5 = "well below average").

Thereby, the ratings of Human Capital and Mobility fellows or other most recent fellows were slightly more positive than of the fellows going abroad around 1990 (see Table 87). The ratings varied marginally according to the status of the fellows as well as according to disciplinary area.

Table 87
Supervisors' Assessment of the Quality of Research Conducted by the EC Fellow as Compared to the Standards Prevailing in the Host Institute, by Type of Programme
(percent)

	Type of programme				Total
	HCM	Predec. of HCM	Other progr. starting since 1992	Other progr. starting prior 1992	
Much above average	28	24	27	21	25
2	46	53	41	46	47
Average	21	17	24	24	22
4	4	3	4	6	5
Well below average	1	3	3	3	2
Total	100	100	100	100	100
(n)	(946)	(386)	(172)	(947)	(2,451)

Question 4.1: How would you rate (compared to the standards prevailing in your institute/laboratory) the quality of the research conducted by the EC fellow while at your lab?

Source: Survey on supervisors

Even a higher proportion of supervisors rated the fellows' work as useful for the programme of the host institution. Actually,

- 38 percent rated the fellows' work as very important,
- 39 percent as important,
- 17 percent as neither important nor unimportant, and
- 6 percent as not important (i.e. 4 or 5 on the scale form 1 = "very important" to 5 = "not at all important ").

Again, ratings were more favourable for fellows awarded grants since 1992 than for those awarded grants around 1990 (see Table 88). These differences, however, were smaller than those according to the fellows' status. As Table 89 shows, the post-doctoral fellows' research was rated as most useful, followed by that of the younger fellows, while the research work of experienced researches was less often viewed as very useful for the host institution. The differences according to disciplinary areas, in contrast, were relatively small.

Table 88
Supervisors' Assessment of the Utility of the Fellow's Work to the Programme of the Host Laboratory, by Type of Programme (percent)

	Type of programme				Total
	HCM	Predec. of HCM	Other progr. starting since 1992	Other progr. starting prior 1992	
Very important	44	34	44	33	38
2	38	41	39	39	39
3	14	18	15	21	17
4	4	5	2	6	5
Not at all important	1	2	0	1	1
Total	100	100	100	100	100
(n)	(950)	(386)	(172)	(945)	(2,453)

Question 4.2: How would you rate the utility of the fellows work to the programme of your laboratory?
Source: Survey on supervisors

Table 89
Supervisors' Assessment of the Utility of the Fellow's Work to the Programme of the Host Laboratory, by Type of Fellowship (percent)

	Type of fellowship			Total
	Junior/ post-grad.	Senior/ post-doct.	Experienced researcher	
Very important	35	42	24	38
2	41	37	35	39
3	18	16	27	17
4	5	4	11	5
Not at all important	1	1	3	1
Total	100	100	100	100
(n)	(985)	(1,227)	(66)	(2,278)

Question 4.2: How would you rate the utility of the fellows work to the programme of your laboratory?
Source: Survey on supervisors

Table 90
Supervisors' Readiness to Accept the Same Fellow in Retrospect, by Type of Programme (percent)

	Type of programme				Total
	HCM	Predec. of HCM	Other progr. starting since 1992	Other progr. starting prior 1992	
Yes, definitely	77	69	73	66	71
Yes, probably	16	20	20	23	20
Probably not	5	6	4	6	5
Definitely not	2	5	2	5	4
Total	100	100	100	100	100
(n)	(947)	(386)	(172)	(949)	(2,454)

Question 4.3: In retrospect, would you accept the same fellow again?
Source: Survey on supervisors

Table 91
Supervisors' Assessments of Fellow, by Host and Home Country (percent)

	Fellows' host country				Fellows' home country			
	Quality above average*	Importance to the programme*	Fellow would be definitely accepted again	Average assessment	Quality above average*	Importance to the programme*	Fellow would be definitely accepted again	Average assessment
BE	58	70	58	62	71	76	75	74
CH	66	69	65	67	**	**	**	*
DE	76	78	72	75	78	82	75	78
DK	74	66	74	71	81	86	84	83
ES	67	82	74	74	71	77	72	73
FR	75	83	73	77	67	71	66	68
GB	74	77	75	75	64	76	64	69
GR	86	87	73	82	69	72	67	69
IE	87	70	83	80	59	69	68	65
IT	67	60	66	64	78	80	75	78
NL	66	76	89	77	78	80	78	79
PT	59	65	89	71	69	71	69	70
SE	70	58	94	74	45	82	64	64

* Categories 1, 2 and 3 on a scale from 1 = "very much" to 5 = "not at all"

** Excluded because of too low number of respondents

Question 4.1: How would you rate (compared to the standards prevailing in your institute/laboratory) the quality of the research conducted by the EC fellow while at your lab? Question 4.2: How would you rate the utility of the fellow's work to the programme of your laboratory? Question 4.3: In retrospect, would you accept the same fellow again?

Source: Survey on supervisors

Finally, the supervisors were asked to look back: if they had to decide again, would they accept the same fellow again? As Table 90 shows, 71 percent of the fellows would be accepted again definitely and 20 percent probably. Only 5 percent probably would not be accepted again and 4 percent definitely not.

Also in this respect, Human Capital and Mobility and other most recent fellows received slightly more positive ratings than those mobile around 1990. As in the case of the general rating of the quality, differences according to the fellows' status and according to disciplinary areas were marginal.

In looking at the responses to the three questions posed across countries, we note that Greek and Irish supervisors rated their fellows most positively, while Belgian, Italian and Swiss supervisors rated their fellows most cautiously. In reverse, Danish fellows were rated most positively, while Swedish and Irish fellows were rated least positively (see Table 91)

7.2 Academic Achievements

At the time the survey was conducted, 26 percent of the European fellows responding had not yet completed their fellowship period at the host institutions. Therefore, they were not asked about the impacts of the fellowships.

Among those having completed the fellowship, 79 percent responding to the respective question reported that papers published in refereed journals were the immediate academic achievement of the fellowship, and 75 percent named papers presented at conferences. A further 23 percent named other publications and three percent patents applied for or granted. Only three percent stated that there were not any visible immediate achievements of the research period in another European country.

Table 92
Immediate Academic Achievements of the Fellowship, by Type of Programme (percent of respondents who had completed the fellowship at the time of the survey; multiple reply possible)

	Type of programme				Total
	HCM	Predec. of HCM	Other progr. starting since 1992	Other progr. starting prior 1992	
A higher degree in home country	11	23	22	26	21
A higher degree in host country	15	24	16	28	22
Papers presented at conferences	75	80	66	73	75
Papers published in refereed journals	80	85	66	77	79
Other publications	23	21	17	24	23
Patent(s) applied for or granted	3	1	6	4	3
Other	12	8	17	9	10
None	3	2	9	3	3
Total	222	244	219	243	236
(n)	(405)	(266)	(64)	(644)	(1,379)

Question 6.2: What are the immediate academic achievements of your fellowship?
Source: Survey on fellows

43 percent of the fellows were awarded a higher academic degree in the context of their European research fellowship, among them about half in the host country (see Table 92). Actually among those not having been awarded a doctoral degree prior to the fellowship period, 78 percent reported the award of higher degree as a consequence of their research period in another European country.

The relatively low proportion of Human Capital and Mobility fellows reporting the award of a higher degree (26 percent) is not necessarily an indicator of lesser achievement. Firstly, as already noted, the proportion of post-doctoral fellows was considerably higher among HCM fellows than among the other fellows surveyed. Secondly, some of the most recent fellows were likely not yet to have completed the degree envisaged at the time the survey was conducted.

The immediate achievements of the research period abroad reported by the fellows questioned in this survey were more impressive in quantitative terms than those by fellows going abroad from the mid-sixties to the mid-eighties who had responded to the previous survey (Teichler et al., 1990, p. 89). Among the respondents to the previous survey, only 47 percent named papers published in refereed journals and 42 percent papers presented at conferences as immediate achievements.

Table 93
Immediate Academic Achievements of the Fellowship, by Duration of the Fellowship
(percent of respondents who had completed the fellowship at the time of the survey; multiple reply possible)

	Overall duration of the EC fellowship (months)					Total
	Up to 6	7 - 12	13 - 24	25 - 36	37 and more	
A higher degree in home country	18	17	17	32	58	21
A higher degree in host country	3	8	21	58	40	22
Papers presented at conferences	56	69	77	85	89	75
Papers published in refereed journals	65	76	82	81	77	79
Other publications	19	19	23	29	31	23
Patent(s) applied for or granted	0	1	4	6	3	3
Other	16	9	10	9	3	10
None	6	5	2	1	0	3
Total	185	204	237	300	302	236
(n)	(124)	(345)	(660)	(196)	(62)	(1,387)

Question 6.2: What are the immediate academic achievements of your fellowship?

Source: Survey on fellows

The duration of the research period abroad naturally played an important role in the kind and the number of immediate academic outcomes, as Table 93 shows. But substantial achieve-

ments were even named by a considerable number of fellows who spent at most half a year in another European country with the help of a European fellowship. More than half each of the fellows spending such a short period abroad presented papers at conferences and published articles in refereed journals which were based on their research activity in the host country, and as many as 21 percent were awarded a higher degree which was at least in part based on their research activity in another European country.

In addition, fellows were asked about the activities they had undertaken as a result of their fellowship. This question addressed also possible achievements which were realised some period after return. Therefore, as a matter of procedure, the achievements reported by most recent fellows are less impressive quantitatively than those by fellows who had been abroad some years ago.

Table 94
Results of the Fellowship, by Type of Programme (percent and mean of respondents who had completed the fellowship at the time of the survey; multiple reply possible)

	Type of programme				Total	
	HCM	Predec. of HCM	Other progr. starting since 1992	Other progr. starting prior 1992		Average number*
Papers presented to scientific conferences	66	78	65	75	72	4.1
Publications in refereed journals (incl. Accepted drafts)	67	82	62	77	74	3.6
Chapters in scientific books	10	18	19	22	17	1.6
Author or editor of scientific books	3	3	1	3	3	1.3
Editor of scientific journals	2	2	0	1	1	1.3
Editor of other professional journals	0	0	0	0	0	1.0
Other professional publications	6	6	9	9	7	2.5
Fellowship(s) received	7	14	4	13	11	1.3
Award of research grants other than those awarded by EC	5	11	3	10	8	1.4
Work on an EC research contract	3	8	6	6	6	1.4
Graduate, doctoral or post-doctoral courses taught, theses/research	15	22	15	22	19	2.1
Supervisor of EC fellows	1	2	1	3	2	1.7
Patent(s) and patent application(s)	2	2	4	3	2	1.5
Other academic or professional accomplishments	5	5	1	6	5	2.2
No activity stated	20	10	18	8	13	
Total	211	262	209	258	242	
(n)	(463)	(271)	(68)	(659)	(1,461)	

* Only respondents stating the respective activity

Question 6.5: Have you undertaken any of the following as a result of your fellowship?

Source: Survey on fellows

Of the about three quarters of the fellows each who had presented papers to conferences or had published articles in refereed journals (the figures in Table 94 differ moderately from those in Table 93 due to incomplete responses to the former question), the average number of papers presented to academic conferencces was 4.1 and the number of articles published 3.6. In addition,

- 17 percent had written on average 1.6 articles in academic books,
- 3 percent were authors and one percent editors of 1.3 academic books on average,
- one percent were editors of academic or professional journals, and
- 7 percent were authors of 2.5 other professional publications on average.

11 percent received other fellowships and 8 percent research grants. 6 percent worked subsequently on other EU grants.

A substantial proportion of former fellows were subsequently in supervision of doctoral and post-doctoral work. 19 percent of the respondents reported those activities. Among them, two percent were supervisors of EU fellows.

Two percent stated that they applied or were granted on average 1.5 patents. The respective proportion was 5 percent among fellows in engineering and one to three percent among fellows of various scientific disciplinary groups.

Altogether the results reported by the respondents to this survey are less impressive than reported by earlier fellows responding to the previous survey. However, most of the respondents to the previous surveys look back on many years of professional experience after the fellowship, while respondents of the recent survey had completed the fellowship period just a short time prior to the survey.

Table 95
Fellows' Select Academic Achievements and Joint Activities with Supervisors (percent and mean of those fellows and supervisors who both had responded to the survey)

	Achievements reported by fellows			Joint activities reported by supervisors	
	Immediate achievements (percentage of fellows)	All achievements (percentage of fellows)	Average number	Percentage of supervisors stating activity	Average number
Papers presented to scientific conferences	77	73	4.1	76	3.3
Publications in refereed journals	80	74	3.6	71	2.8
Chapters in scientific books	–	18	1.6	13	1.6
Author or editor of scientific books	–	3	1.3	2	1.2
Patent(s) and patent application(s)	3	3	1.6	2	1.2

Question 6.2 of questionnaire for fellows: What are the immediate academic achievements of your fellowship?

Question 6.5 of questionnaire for fellows: Have you undertaken any of the following as a result of your fellowship?

Question 3.5 of questionnaire for supervisors: Have you undertaken any of the following either in co-operation with the fellow or based on results of the research of the fellow?

Source: Survey on fellows and survey on supervisors

Supervisors were asked whether they published jointly with the European fellows and whether they developed patents jointly. Table 95 comprised only the responses by those supervisors and fellows who both had responded to the respective questionnaire.

The responses indicate a very close co-operation between the fellows and their supervisors at the host institution. Actually, more than 80 percent of the publications resulting from the fellowship period were joint products.

Asked about the number of hours they have spent on the supervision of the fellows, the supervisors reported on average 4.7 hours per week. As Table 96 shows, 25 percent reported that they spent even more than five hours per week on co-operation with the fellows.

Table 96
Hours per Week Spent by Supervisors on the Supervision of the Fellow, by Type of Programme (percent and mean)

	Type of programme				Total
Hours per week	HCM	Predec. of HCM	Other progr. starting since 1992	Other progr. starting prior 1992	
1	11	5	8	6	8
2	25	14	25	21	21
3	15	16	17	15	15
4	15	14	10	15	14
5	13	18	13	19	16
6-9	12	13	13	14	13
10 and more	9	20	13	11	12
Total	100	100	100	100	100
Weekly hours spent on supervision	4.2	5.6	4.4	4.8	4.7
(n)	(908)	(376)	(166)	(930)	(2,380)

Question 3.4: How much time did/do you spend on average per week on the supervision of the fellow?
Source: Survey on supervisors

The time spent by supervisors on co-operation with fellows differed to a lesser extent by the fellows' status than one might have expected. Supervisors each of doctoral and post-doctoral fellows spent 4.7 hours per week on average, while supervisors of experienced researchers spent 4.2 hours.

The extent of co-operation varied by disciplinary area. Supervisors from economics spent only slightly more than half of the time on supervision spent by supervisors from other disciplines (see Table 97). In fact, supervisors from economics and other social science and humanities fields publish less frequently in co-operation with their fellows than supervisors from other disciplines (see Table 98). This finding confirms the conventional wisdom established by other studies on graduate education and organisation of research, according to which a

closer co-operation between senior and junior academics is customary in science and engineering than in the humanities and social sciences.

Table 97
Hours per Week Spent by the Supervisor on the Supervision of the Fellow, by Discipline of the Fellowship (mean)

Hours per week	Discipline* of the Fellowship							Total
	Che	Ear	Eco	Eng	Lif	Mat	Phy	
1	4	9	28	10	5	19	7	8
2	21	25	37	29	19	26	14	21
3	20	14	13	16	14	10	14	15
4	14	11	9	16	16	16	12	14
5	18	16	4	12	18	6	20	16
6-9	7	15	6	8	16	13	15	13
10 and more	15	9	3	10	11	11	17	12
Total	100	100	100	100	100	100	100	100
Average hours spent on supervision	4.7	4.4	2.6	4.1	4.8	4.7	5.4	4.7
(n)	(325)	(219)	(127)	(251)	(925)	(94)	(434)	(2,375)

* Explanation see Chart 9
Question 3.4: How much time did/do you spend on average per week on the supervision of the fellow?
Source: Survey on supervisors

Table 98
Fellows' Selected Academic Achievements and Joint Activities with Supervisors, by Discipline of the Fellowship (percent and mean of those fellows and supervisors who both had responded to the survey)

	Achievements reported by fellows			Joint activities reported by supervisors	
	Immediate achievements (percentage of fellows)	All achievements (percentage of fellows)	(average number)	Percentage of supervisors stating activity	Average number
Chemistry					
Papers presented to scientific conferences	71	65	3.4	78	3.2
Publications in refereed journals	68	79	3.5	82	3.2
Chapters in scientific books	*	8	1.2	8	1.5
Author or editor of scientific books	*	0	0.0	1	1.0
Patent(s) and patent application(s)	2	2	2.0	4	1.3
Earth sciences					
Papers presented to scientific conferences	88	78	3.9	77	3.1
Publications in refereed journals	79	72	3.4	13	2.4
Chapters in scientific books	*	9	1.4	10	1.8
Author or editor of scientific books	*	4	1.0	1	1.0
Patent(s) and patent application(s)	1	1	1.0	1	1.0
Economics					
Papers presented to scientific conferences	83	77	5.4	35	2.5
Publications in refereed journals	67	66	3.5	26	1.8
Chapters in scientific books	*	45	2.1	11	1.6
Author or editor of scientific books	*	23	1.5	6	1.2
Patent(s) and patent application(s)	0	0	1.0	0	•
Engineering					
Papers presented to scientific conferences	72	70	3.4	83	2.4
Publications in refereed journals	59	56	3.5	61	2.2
Chapters in scientific books	*	9	2.0	4	1.3
Author or editor of scientific books	*	2	1.5	1	1.0
Patent(s) and patent application(s)	4	4	1.0	4	1.0

(continued)

(Table 98 cont.)

	Achievements reported by fellows			Joint activities reported by supervisors	
	Immediate achievements (percentage of fellows)	All achievements (percentage of fellows)	Average number	Percentage of supervisors stating activity	Average number
Life sciences					
Papers presented to scientific conferences	71	73	4.0	81	3.3
Publications in refereed journals	83	78	3.3	79	2.6
Chapters in scientific books	*	27	1.6	21	1.6
Author or editor of scientific books	*	1	1.0	1	1.0
Patent(s) and patent application(s)	4	3	1.3	3	1.1
Mathematics					
Papers presented to scientific conferences	85	75	4.2	62	2.8
Publications in refereed journals	30	65	3.1	52	1.8
Chapters in scientific books	*	10	2.5	11	3.0
Author or editor of scientific books	*	8	1.0	2	1.0
Patent(s) and patent application(s)	3	3	2.0	3	•
Physics					
Papers presented to scientific conferences	87	76	4.8	80	3.9
Publications in refereed journals	87	76	4.4	75	3.7
Chapters in scientific books	*	10	1.5	10	1.0
Author or editor of scientific books	*	2	1.0	3	1.3
Patent(s) and patent application(s)	5	4	2.2	2	1.8

* Not asked for in respective question

Question 6.2 of questionnaire for fellows: What are the immediate academic achievements of your fellowship?

Question 6.5 of questionnaire for fellows: Have you undertaken any of the following as a result of your fellowship?

Question 3.5 of questionnaire for supervisors: Have you undertaken any of the following either in co-operation with the fellow or based on results of the research of the fellow?

Source: Survey on fellows and survey on supervisors

7.3 Subsequent Study and Work

The transition to employment after the fellowship period in another European country obviously is an issue of concern. Shortly after the completion of the fellowship, only about half of fellows were employed or self-employed. About a quarter were supported by another fellowship, 13 percent were unemployed, and 11 percent undertook study funded by their own (or their families') means.

Some fellows not being employed immediately after the fellowship in another European country took up employment shortly within a few months, but the process obviously was not smooth for all of them. Among those fellows who had completed their fellowship period two to three years prior to the time the survey were conducted, 70 percent were employed or self-employed at the time the survey was conducted, while

- 16 percent were funded by another fellowship,
- 5 percent undertook self-supported study, and
- 7 percent were unemployed.

Table 99 shows, first that the proportion fellows being employed shortly after the fellowship in another European country was lower in most recent years than among the fellows who started their fellowship period a few years earlier. As already stated, there are many indicators of a worsening academic labour market in Europe in recent years.

Table 99
Type of Employment Shortly After Completion of the Fellowship and Currently, by Type of Fellowship and Year of Start (percent of respondents who had completed the fellowship at the time of the survey)

	Type of fellowship and year of start					Total
	Post-grad. prior 1992	Post-grad. 1992 and later	Post-doc. prior 1992	Post-doc. 1992 and later	Experienced researcher	
Shortly after fellowship						
Self-supported study	16	30	3	7	7	11
Other fellowship	25	20	28	27	20	26
Employment (including self-employed)	42	31	56	50	68	48
Unemployed	14	15	12	15	5	13
Other	4	4	1	1	0	2
Total	100	100	100	100	100	100
(n)	(472)	(80)	(293)	(268)	(44)	(1,157)
At the time of the survey						
Self-supported study	7	22	1	6	5	6
Other fellowship	17	22	14	27	12	19
Employment (including self-employed)	68	26	79	55	77	66
Unemployed	7	16	6	11	5	8
Other	1	4	0	1	0	1
Total	100	100	100	100	100	100
(n)	(519)	(95)	(334)	(312)	(57)	(1,317)

Question 6.3: Please state your employment/assignment.

Source: Survey on fellows

As one might expect, a higher proportion of post-doctoral fellows transferred to employment shortly after the fellowship period than of doctoral fellows. Among those who had started the

fellowship since 1992 and had completed it at the time the survey was conducted, 50 percent of the post-doctoral fellows, but only 31 percent of doctoral fellows were employed shortly after the fellowship period. About the same proportion of doctoral fellows (30 percent) decided to undertake self-supported study (and possibly get funded by means of a fellowship or employment later).

Table 100 shows that the proportion of doctoral fellows who were either employed or funded through a fellowship shortly after the fellowship period, decreased continuously from more than 81 percent in the late 1980s to 47 percent in 1995. In reverse, the proportion of those either unemployed or undertaking self-supported study increased continuously during the same period from 13 percent to 50 percent.

Table 100
Type of Doctoral Fellows' Employment Shortly After Completion of the Fellowship, by Year of Completion of the Fellowship (percent of doctoral fellows having completed the fellowship at the time of the survey)

Type of employment	Year of completion of the fellowship							Total
shortly after fellowship	87-89	90	91	92	93	94	95	
Self-supported study	8	8	14	11	12	26	36	18
Other fellowship	27	29	27	26	27	19	15	24
Employment (including self-employed)	54	49	39	44	46	31	32	41
Unemployed	5	7	14	13	13	22	14	14
Other	5	7	7	6	2	2	3	4
Total	100	100	100	100	100	100	100	100
n)	(37)	(59)	(59)	(88)	(108)	(115)	(78)	(544)

Question 6.3: Please state your employment/assignment in terms of (A.) type of employment/assignment, (B.) type of work task, (C.) employment sector/organisation and (D.) country, each, (I) shortly after the fellowship, (II) subsequently (if different from I) and (III) currently (if different from I or II).

The changing academic labour market certainly comes into play, if we look further back and compare the whereabouts of fellows who had been supported by a European fellowship on a graduate level (i.e. who had not completed a doctorate prior to the fellowship period).

- 59 percent of the fellows on graduate level going abroad between the mid-sixties and the mid-eighties reported that were employed shortly after the completion of the fellowship period (see Teichler et al., 1990, p. 94), but only 42 percent of those who went abroad around 1990 and, as shown above, only 31 percent of those who went abroad since 1992.
- The unemployment quota shortly after the fellowship increased from 6 percent to 14 percent and eventually 15 percent.
- The proportions of those funded by another fellowship changed least: 18, 25 and 20 percent.
- The proportion of those undertaking self-supported study shortly after the fellowship period increased from 14 percent to 16 percent and most recently to 30 percent.

In combining the month and year of completion of the fellowship period with the month and year of the response to the questionnaire in the analysis of the fellows' status at the time the

Table 101
Employment of Doctoral Fellows Completing Fellowship Since 1992 at the Time of the Survey, by Year of Completion of Fellowship
(percent)

	Time elapsed since return from fellowship (in months)										Total
	Up to 3	4-6	7-9	10-12	13-18	19-24	25-30	31-36	37-42	43-48	
a) Fellowship completed in 1995											
Self-supported study	32	26	33	25							29
Other fellowship	12	20	21	13							17
Employment	36	34	38	38							36
Unemployment	16	17	4	25							14
Other	4	3	4	0							3
Total	100	100	100	100	–	–	–	–	–	–	100
(n)	(25)	(35)	(24)	(8)							(92)
b) Fellowship completed in 1994											
Self-supported study			23	18	15	0					14
Other fellowship			46	30	18	20					24
Employment			15	42	54	70					50
Unemployment			15	6	11	5					9
Other			0	3	2	5					2
Total	–	–	100	100	100	100	–	–	–	–	100
(n)			(13)	(33)	(61)	(20)					(127)

(continued)

(Table 101 cont.)

	Time elapsed since return from fellowship (in months)										Total
	Up to 3	4-6	7-9	10-12	13-18	19-24	25-30	31-36	37-42	43-48	
c) Fellowship completed in 1993											
Self-supported study						0	4	7			3
Other fellowship						21	27	7			22
Employment						62	67	79			66
Unemployment						15	2	7			8
Other						2	0	0			1
Total	–	–	–	–	–	100	100	100	–	–	100
(n)						(52)	(52)	(14)			(118)
d) Fellowship completed in 1992											
Self-supported study								3	7	6	5
Other fellowship								19	13	19	16
Employment								68	78	69	73
Unemployment								10	2	0	4
Other								0	0	6	1
Total	–	–	–	–	–	–	–	100	100	100	100
(n)								(31)	(46)	(16)	(93)

Question 6.3: Please state your employment/assignment in terms of (A.) type of employment/assignment, (B.) type of work task, (C.) employment sector/organisation and (D.) country, each, (I) shortly after the fellowship, (II) subsequently (if different from I) and (III) currently (if different from I or II).

survey was conducted we can establish the time elapsed until the status was reached the respondents held at the time of the survey. Table 101 shows that

- the status held immediately after return by the doctoral fellows returning in 1995 did not improve within 12 months,
- doctoral fellows returning in 1994 increasingly got employed ten months after return and later,
- almost 20 percent of doctoral fellows still lived on another fellowship even in their third and fourth year after the completion the European fellowship (this information is available for fellows returning 1993 or earlier).

Table 102 shows that very few post-doctoral fellows undertook self-supported study or were unemployed still one year after the fellowship period. However, the proportion of post-doctoral fellows living some years after return on another fellowship was by no means trivial. Even in the third year after return, only about two-thirds of post-doctoral fellows were employed.

Of the fellows on graduate level employed or funded by a fellowship immediately after the fellowship, about 90 percent had primarily research and/or teaching tasks. Less than 10 percent reported dominant managerial or other assignments. In contrast, as the previous survey showed, more than one third of former fellows eventually took over other than teaching and research assignments - mostly after several additional years of academic work.

Similarly, nine out of ten of the European fellows employed or funded by another fellowship were active in higher education institutions or research institutions shortly after the fellowship period. Soon afterwards, some fellows transferred to other organisations. The proportion of those active in other organisations had already increased to 16 percent at the time the survey was conducted (see Table 103), among them about 8 percent in private enterprises.

Obviously, the European research fellowships had led more frequently to private employment in the past than they did in recent years. Among European research fellows going abroad from the mid-sixties to the mid-eighties, 19 percent went shortly after the fellowship period to private enterprises. Among those surveyed in this study, only 5 percent went to private enterprises and 6 percent to private research institutes (the categories of the previous survey differed from those of the recent survey).

Among the fellows recently employed in private enterprises, 42 percent were active initially and 40 percent at the time the survey was conducted in organisations employing more than 1,000 persons. In contrast, 23 percent initially and 27 percent at the time the survey was conducted were active in organisation with at most 100 employees. By and large, these figures match those observed in the previous survey.

At the time the survey was conducted, 7 percent of those employed were in a senior position (professor, director, head of institutions etc.). 35 percent were in advanced position (associate professor, head of departments etc.), and about half were in regular academic or professional staff positions. Ten percent were in other positions (for example self-employed, no regular position in the organisation, etc.).

As one might expect, the status while on fellowship had a bearing on the position at the time the survey was completed. This was likely because the time span between the completion of the fellowship and the time when the survey was conducted was relatively short on average. It worth noting, though that a substantial number of doctoral fellows already reported career advancements at the time the survey was conducted.

Table 102
Employment of Post-doctoral Fellows Completing Fellowship Since 1992 at the Time of the Survey, by Year of Completion of Fellowship (percent)

	Time elapsed since return from fellowship (in months)										Total
	Up to 3	4-6	7-9	10-12	13-18	19-24	25-30	31-36	37-42	43-48	
a) Fellowship completed in 1995											
Self-supported study	6	13	0	7							7
Other fellowship	24	36	29	13							28
Employment	49	38	66	67							51
Unemployment	20	13	5	7							14
Other	0	0	0	7							1
Total	100	100	100	100	–	–	–	–	–	–	100
(n)	(79)	(55)	(41)	(15)							(190)
b) Fellowship completed in 1994											
Self-supported study			0	2	0	8					2
Other fellowship			22	29	28	25					27
Employment			44	64	68	67					64
Unemployment			33	4	3	0					7
Other			0	0	2	0					1
Total	–	–	100	100	100	100	–	–	–	–	100
(n)			(18)	(45)	(65)	(24)					(152)

(continued)

(Table 102)	Time elapsed since return from fellowship (in months)										Total
	Up to 3	4-6	7-9	10-12	13-18	19-24	25-30	31-36	37-42	43-48	
c) Fellowship completed in 1993											
Self-supported study						0	3	8			3
Other fellowship						17	13	25			17
Employment						70	70	58			68
Unemployment						9	13	8			11
Other						4	0	0			2
Total	–	–	–	–	–	100	100	100	–	–	100
(n)						(23)	(30)	(12)			(65)
d) Fellowship completed in 1992											
Self-supported study								5	4	0	3
Other fellowship								5	15	6	9
Employment								81	78	89	82
Unemployment								10	4	6	6
Total	–	–	–	–	–	–	–	100	100	100	100
(n)								(21)	(27)	(18)	(66)

Question 6.3: Please state your employment/assignment in terms of (A.) type of employment/assignment, (B.) type of work task, (C.) employment sector/organisation and (D.) country, each, (I) shortly after the fellowship, (II) subsequently (if different from I) and (III) currently (if different from I or II).

Table 103
Sector of Employment Shortly After Completion of the Fellowship and at the Time of the Survey, by Type of Fellowship and Year of Start (percent of respondents who had completed the fellowship and were employed at the respective time)

	Type of fellowship and year of start					Total
	Post-grad. prior 1992	Post-grad. 1992 and later	Post-doc. prior 1992	Post-doc. 1992 and later	Experienced researcher	
Shortly after fellowship						
Institute of higher education	49	57	42	52	56	49
Public research institute	29	24	41	32	40	33
Private research institute	7	9	6	4	0	6
International, intergovern-mental organisation	4	4	3	2	2	3
Other public organisation	2	4	3	2	2	3
Other private organisation	7	0	3	5	0	5
Other	3	1	2	3	0	2
Total	100	100	100	100	100	100
(n)	(395)	(67)	(260)	(224)	(43)	(989)
At the time of the survey						
Institute of higher education	43	52	44	51	51	46
Public research institute	26	26	36	34	40	31
Private research institute	8	9	7	4	4	7
International, intergovern-mental organisation	5	7	2	2	4	3
Other public organisation	3	4	4	1	2	3
Other private organisation	13	1	5	6	0	8
Other	3	1	2	2	0	2
Total	100	100	100	100	100	100
(n)	(493)	(85)	(334)	(281)	(57)	(1,250)

Question 6.3: Please state your employment/assignment in terms of (A.) type of employment/assignment, (B.) type of work task, (C.) employment sector/organisation and (D.) country, each, (I) shortly after the fellowship, (II) subsequently (if different from I) and (III) currently (if different from I or II).

Source: Survey on fellows

Table 104
Fellows' Position at the Time of the Survey, by Type of Fellowship (percent of respondents who had completed the fellowship and were employed at the time the survey was conducted)

	Type of fellowship			Total
	Junior/ post-grad.	Senior/ post-doct.	Experienced researcher	
Senior position (professor, director, head etc.)	5	8	11	7
Advanced position (ass. professor, head of department etc.)	25	41	53	35
Professional staff position	56	44	36	49
Other position	14	8	0	10
Total	100	100	100	100
(n)	(390)	(448)	(47)	(885)

Question 6.4: What is your current position?

Source: Survey on fellows

7.4 European and International Mobility

The European research fellowship programme certainly contributed to European and international mobility. Shortly after the fellowship period, 46 percent of those academically and professionally active were in another than their home country. At the time the survey was conducted, still 42 percent were abroad.

This is a substantial increase to previous fellows. Of those who went to another European country with the help of a European fellowship between the mid-sixties and the mid-eighties, 28 percent lived abroad shortly after the fellowship and 30 percent at the time the survey was conducted (Teichler et al. ,1990, p. 95).

Shortly after the fellowship, the majority of those continuing their studies with their own means and those supported by another fellowship were abroad: 65 percent of the fellows funding studies with their own means continued the stay in the host country and 10 percent in another EU or EFTA country. The respective proportions were 42 and 13 percent of respondents who had started another fellowship. In contrast, the majority of those employed had returned to their home country. Yet, the proportion of those employed abroad is remarkable. This might be underscored by the finding that slightly less than 20 percent of former ERASMUS students lived abroad about five years after the ERASMUS-supported study period abroad. Actually, among European research fellows employed shortly after the European fellowship period, about 35 percent were employed in a country different from their home country, the majority of them - 22 percent of all employed - in the host country in which the fellowship was carried out (see Table 105, part c. and d.).

Table 105
Country of Employment and Study Shortly After the Fellowship, by Type of Activity, Type of Fellowship and Year of Start (percent of respondents who had completed the fellowship)

	Type of fellowship and year of start					Total
	Post-grad. prior 1992	Post-grad. 1992 and later	Post-doc. prior 1992	Post-doc. 1992 and later	Experienced researcher	
a. Self supported study						
Home country	28	0	25	40	100	25
Host country	66	89	50	47	0	65
Other EC or EFTA country	6	11	25	13	0	10
USA	–	–	–	–	–	–
Other country	–	–	–	–	–	–
Total	100	100	100	100	100	100
(n)	(32)	(19)	(4)	(15)	(2)	(72)
b. Fellowship						
Home country	25	21	48	52	33	38
Host country	51	50	39	32	33	42
Other EC or EFTA country	14	21	3	12	33	13
USA	6	7	3	2	0	3
Other country	4	0	6	2	0	3
Total	100	100	100	100	100	100
(n)	(79)	(14)	(33)	(65)	(6)	(197)
c. Employed in profess. pos.						
Home country	54	44	57	69	100	59
Host country	30	50	33	24	0	30
Other EC or EFTA country	12	6	9	4	0	9
USA	4	0	0	1	0	2
Other country	1	0	1	1	0	1
Total	100	100	100	100	100	100
(n)	(155)	(18)	(88)	(72)	(12)	(345)
d. Employed in advanced pos.						
Home country	60	67	73	70	90	69
Host country	22	0	11	17	0	15
Other EC or EFTA country	13	33	13	7	5	12
USA	1	0	2	4	5	2
Other country	3	0	1	2	0	2
Total	100	100	100	100	100	100
(n)	(111)	(5)	(150)	(62)	(29)	(357)

Question 6.3: Please state your employment/assignment in terms of (A.) type of employment/assignment, (B.) type of work task, (C.) employment sector/organisation and (D.) country, each, (I) shortly after the fellowship, (II) subsequently (if different from I) and (III) currently (if different from I or II).

Source: Survey on fellows

Table 106
Country of Employment and Study at the Time the Survey was Conducted, by Type of Activity, Type of Fellowship and Year of Start (percent of respondents who had completed the fellowship)

	Type of fellowship and year of start					Total
	Post-grad. prior 1992	Post-grad. 1992 and later	Post-doc. prior 1992	Post-doc. 1992 and later	Experienced researcher	
a. Self supported study						
Home country	27	0	50	47	100	28
Host country	62	86	25	41	0	60
Other EC or EFTA country	8	10	25	12	0	10
USA	3	5	0	0	0	2
Other country	–	–	–	–	–	–
Total	100	100	100	100	100	100
(n)	(37)	(21)	(4)	(17)	(3)	(82)
b. Fellowship						
Home country	28	33	50	52	43	41
Host country	46	38	32	32	29	37
Other EC or EFTA country	10	19	2	11	29	10
USA	12	10	9	1	0	7
Other country	4	0	7	4	0	4
Total	100	100	100	100	100	100
(n)	(90)	(21)	(44)	(82)	(7)	(244)
c. Employed in profess. pos.						
Home country	56	45	59	72	100	61
Host country	28	50	32	20	0	27
Other EC or EFTA country	8	5	6	4	0	6
USA	6	0	2	1	0	3
Other country	3	0	1	2	0	2
Total	100	100	100	100	100	100
(n)	(190)	(20)	(102)	(89)	(15)	(416)
d. Employed in advanced pos.						
Home country	68	60	80	69	90	75
Host country	16	20	10	18	0	13
Other EC or EFTA country	10	20	7	8	7	8
USA	2	0	2	3	3	2
Other country	4	0	1	2	0	2
Total	100	100	100	100	100	100
(n)	(111)	(5)	(150)	(62)	(29)	(357)

Question 6.3: Please state your employment/assignment in terms of (A.) type of employment/assignment, (B.) type of work task, (C.) employment sector/organisation and (D.) country, each, (I) shortly after the fellowship, (II) subsequently (if different from I) and (III) currently (if different from I or II).

Source: Survey on fellows

The general pattern holds true up to the present:

- Of those still undertaking self-supported study at the time the survey was conducted, 60 percent studied in the host country and 12 percent in another country. Only 28 percent had returned to the home country.
- Of those funded by another fellowship, 37 percent were in the host country at the time the survey was conducted and 21 percent in another country. Those having returned to the home country, though, formed the largest group (41 percent), still were in the minority.
- Among those employed in regular academic or professional staff positions, 27 percent were in the host country and 11 percent in another country. The majority (61 percent) had returned to the home country.
- Finally, among those employed in advanced or senior positions, 13 percent were employed in the host country and 12 percent in another country. Three quarters held those positions in their home country (see Table 106).

The readiness of living and working abroad immediately after the fellowship is highest among doctoral fellows. Many of them continued study or work in the host country.

7.5 Perceived Impacts

The European fellows rated the outcomes of the fellowship for themselves very positively, as Table 107 shows:

- 89 percent stated that the fellowship period in another European country helped them to became internationally more aware. This was about the same proportion as those responding to the previous survey.
- Most fellows rated the academic impacts positively. 92 percent noted an improvement of their general scientific and technical competence, 81 percent stated that it helped to establish international research contacts, and 76 percent observed that the fellowship period had helped them to establish their scientific reputation. As far as these questions were posed in the previous survey, we note a substantial increase of the academic value over time as well as a further increase from the period around 1990 to most recent years.
- 66 percent observed an improvement of social and communication skills due to the fellowship period abroad. This proportion was slightly smaller than among previous fellows (71 percent).
- The professional value of the fellowship period in another European country was rated positively, though not the extent the academic value was assessed. 74 percent perceived a career advantage in academic research, 51 percent a help in getting employed immediately after the fellowship period, and 26 percent a career advantage in industry. Incidentally, also 26 percent stated that the fellowship period had helped them to understand the relevance of research to industry. Advantages for academic careers and for getting employed immediately were stated more frequently by fellows recently surveyed than by previous fellows. Even if the tighter labour marked has led to increased employment problems and the early employment was less impressive than in the past, the contribution of the fellowship in this respect was highly appreciated.

It is worthwhile to mention that respondents who stayed in the United States at the time the survey was carried out clearly more often underlined the value of the EC fellowship for career advantages in academic research (92 percent) and for the development of social and communication skills (78 percent).

A crucial test for the satisfaction with the fellowship is undoubtedly the question, whether the former fellows believe that they would decide again to go to the same host institution with the help of an European fellowship, if they could turn their life back. In the previous survey, we noted that 44 percent would have preferred another option, among others 20 percent a fel-

lowship in the U.S. and 11 percent a fellowship period in another institution of the same host country.

Table 107
Personal Outcomes of the Fellowship, by Type of Fellowship and Year of Start
(percent* of respondents who had completed the fellowship)

	Type of fellowship and year of start					Total	In comparison:
	Post-grad. prior 1992	Post-grad. 1992 and later	Post-doc. prior 1992	Post-doc. 1992 and later	Experienced researcher		Fellows mid-60s to mid-80s
It helped get employment immediately afterwards	52	38	53	53	24	51	42
Career advantage in academic research	74	68	71	76	80	74	42
Career advantage in industry	35	28	16	22	10	26	31
Improvement in general scientific or technical competence	92	96	88	92	100	92	79
It helped to establish my scientific reputation	75	79	76	75	76	76	52
It helped to understand relevance of research for industry	33	30	18	22	23	26	**
It helped to develop social and communication skills	70	76	65	63	48	66	71
It helped to make me internationally more aware and experienced	91	89	87	88	81	89	87
It helped to establish international research contacts/ networks	80	86	78	83	76	81	**

* Categories 1, 2 and 3 on a scale from 1 = "very much" to 5 = "not at all"

** Not asked for in the previous survey

Question 7.1: How do you rate the outcomes of the fellowship for yourself with regard to the following aspects?

Source: Survey on fellows

The fellows addressed in this survey obviously were more satisfied with the fellowship period at the host institution. As Table 108 shows, three quarters of the former fellows would opt again for a fellowship at the same host institution. The proportion of those preferring a fellowship period in the U.S. had declined to 7 percent, i.e. to one third of the European fellows of previous decades. In contrast, the preference for another institution in the same host institution remained almost as frequent as it had been stated by previous fellows. This view, actually, was most often expressed by fellows in mathematical fields (14 percent).

Table 108
Fellows' Preferences in Retrospective, by Type of Programme (percent of respondents who completed the fellowship)

Preferences if life could be turned back	Type of programme: HCM	Predec. of of HCM	Other progr. starting since 1992	Other progr. starting prior 1992	Total	In comparison: Fellows mid-60s to mid-80s
The same, i.e. the EC fellowship at the same host laboratory	79	75	87	73	76	56
A fellowship in home country	2	2	2	3	2	2
A fellowship in a different laboratory in the same host country	6	9	5	10	8	6
A fellowship in a different EC country	6	4	5	5	5	11
A fellowship in the USA	6	6	2	8	7	20
A fellowship in another country	0	1	0	2	1	2
Other	3	3	2	2	3	4
Total	102	102	102	103	103	101
(n)	(403)	(263)	(62)	(628)	(1,356)	(446)

Question 7.2: If you turn your life back to the time prior to the fellowship, what would you prefer? Name the one you prefer most.

Source: Survey on fellows

Table 109
Change of Discipline Caused by the Fellowship, by Type of Fellowship (percent of respondents who had completed the fellowship)

	Type of fellowship: Junior/ post-grad.	Senior/ post-doct.	Experienced researcher	Total
No	50	51	67	51
Yes, change of discipline	4	3	2	3
Yes, change of area of specialisation	17	14	5	15
Yes, move to work in a more multi-disciplinary way	29	32	26	30
Total	100	100	100	100
(n)	(625)	(666)	(58)	(1,349)

Question 7.3: Did the fellowship cause you to change your discipline, to change your area of specialisation or to work in a more multi-disciplinary way?

Source: Survey on fellows

For about half of the fellows, experience during the fellowship period abroad led to a change of their disciplinary perspective. As Table 109 shows, 30 percent decided to work into a more multi-disciplinary way. 15 percent changed the area of specialisation, and 3 percent changed the discipline. As one might expect, those changes are less often reported by experienced researchers than by doctoral and post-doctoral fellows.

The change of disciplinary perspectives affected all disciplines. However, as Table 110 shows, changes were slightly more frequent in earth sciences and chemistry than in other disciplines.

Table 110
Change of Discipline Caused by the Fellowship, by Discipline of the Fellowship
(percent of respondents who had completed the fellowship)

	Discipline of the fellowship*							Total
	Che	Ear	Eco	Eng	Lif	Mat	Phy	
No	45	43	60	59	49	53	57	51
Yes, change of discipline	4	3	3	3	4	2	2	3
Yes, change of area of specialisation	19	18	12	11	15	14	16	15
Yes, move to work in a more multi-disciplinary way	32	37	25	27	32	32	25	30
Total	100	100	100	100	100	100	100	100
(n)	(171)	(120)	(65)	(147)	(529)	(66)	(257)	(1,355)

* Explanation see Chart 9

Question 7.3: Did the fellowship cause you to change your discipline, to change your area of specialisation or to work in a more multi-disciplinary way?

Source: Survey on fellows

Overall, most fellows perceived the European research fellowships positively in many respects:

- Almost all believed that it improves the scientific links between European countries and that it enhances the quality of young researchers in Europe.
- Three quarters or more stated that the fellowships strengthen the European research capability and that they contribute to the establishment of international research networks.
- More than two-thirds of the fellows perceived an enhancement of the image of the European Community with the help of the fellowship scheme.
- More than half noted an improvement of links between advanced and less favoured regions.
- Finally, only 17 percent stated that the fellowship scheme contributes to an improvement of links between academic research and industry (see Table 111).

In comparing the responses of the fellows addressed in this survey to the responses made by fellows addressed in the previous survey, we note that recent fellows stated more substantial impacts in all respects except one: previous fellows stated a stronger contribution to links between academic research and industry.

Table 111
Impact of the EC Fellowship Programme as a Whole as Perceived by Fellows, by Type of Programme (percent* of respondents who completed the fellowship)

	Type of programme				Total	In comparison:
The EC fellowship programme ...	HCM	Predec. of of HCM	Other progr. starting since 1992	Other progr. starting prior 1992		Fellows mid-60s to mid-80s
Improves the quality of young researchers in Europe	83	83	81	85	84	70
Enhances the image of the European community	69	66	71	71	69	62
Strengthens European research capability	79	80	85	79	79	61
Improves scientific links between European countries	89	90	94	88	89	78
Improves sc. links between advanced and less favoured regions	55	56	66	58	57	48
Improves links between academic research and industry	16	14	34	17	17	24
Improves the establishment of international research networks	72	74	85	76	75	**

* Categories 1 and 2 on a scale from 1 = "very high" to 5 = "no impact at all"

** Not asked for in previous survey

Question 7.4: How do you rate the impact of the EC fellowship programme as a whole?

Source: Survey on fellows

Supervisors were posed the same questions. Their responses show that they appreciated the impacts of the fellowship programme even more highly than the fellows themselves. Notably, the supervisors saw a stronger contribution to the image of the European Community than the fellows (see Table 112).

Table 112
Impact of the EC Research Training Fellowship Programme as a Whole as Perceived by Supervisors, by Type of Programme (percent*)

The EC fellowship programme ...	Type of programme: HCM	Predec. of of HCM	Other progr. starting since 1992	Other progr. starting prior 1992	Total	In comparison: Fellows mid-60s to mid-80s
Improves quality of young researchers in Europe	94	95	97	93	94	70
Enhances the image of the European community	82	80	86	83	83	62
Strengthens European research capability	93	86	90	86	90	61
Improves scientific links between European countries	94	94	93	92	93	78
Improves scientific links between advanced and less-favoured regions	69	66	61	66	67	48
Improves links between academic research and industry	15	14	34	19	18	24
Improves the establishments of international research networks	80	74	85	76	78	**

* Categories 1 and 2 on a scale from 1 = "very much" to 5 = "not at all"

** Not asked for in previous survey

Question 4.6: How do you view the impact of the EC research training fellowship programme as a whole?

Source: Survey on supervisors

7.6 Continued Contacts between Fellows and Host Institution

About two two-thirds of the fellows who had completed the fellowship period stated that they maintained close or fairly close contacts (1 or 2 on a scale from 1 = "close links" to 5 = "no contacts at all") with the host institution. As Table 113 shows, only five percent did not maintain any contacts at all, while another 10 percent maintained at most limited contacts (scale point 4)

As a matter of course, some of these contacts are likely to loose momentum over the years. As Table 114 shows, more than four fifth of fellows having completed the fellowship period at most one year earlier than the time the survey was conducted kept close contacts to the host institution. Only few more than half kept close contacts when more than three years have elapsed since the completion of the fellowship. In the previous survey, a substantial proportion of European fellowship were asked to respond ten or even more years after the fellowship period. Thus, it does not come as a surprise to note that only one quarter of the respondents to the previous survey maintained relatively close contacts with the host institution.

Table 113
Maintaining Contacts to the Host Laboratory, by Type of Programme (percent of respondents who had completed the fellowship)

	Type of programme				Total
	HCM	Predec. of HCM	Other progr. starting since 1992	Other progr. starting prior 1992	
Close links	55	35	57	38	43
2	23	25	25	24	24
3	14	22	7	18	17
4	6	12	10	12	10
No contacts at all	2	6	2	8	5
Total	100	100	100	100	100
(n)	(395)	(264)	(60)	(635)	(1,354)

Question 6.6: Do you maintain contacts with your host laboratory?
Source: Survey on fellows

Table 114
Maintaining of Contacts to the Host Laboratory, by Time Elapsed Since Completion of the Fellowship (percent and mean of respondents who had completed the fellowship)

	Time elapsed since completion (months)						Total
	1 -6	7 - 12	13 - 24	25 - 36	37 - 48	49 and more	
Close links	60	55	45	36	28	32	43
2	22	24	21	30	27	22	24
3	12	14	18	20	19	21	17
4	6	5	12	10	13	15	10
No contacts at all	0	2	4	5	13	10	6
Total	100	100	100	100	100	100	100
(n)	(217)	(211)	(275)	(177)	(166)	(286)	(1,332)
Mean	1.6	1.8	2.1	2.2	2.6	2.5	2.1

Question 6.6: Do you maintain contacts with your host laboratory?
Source: Survey on fellows

The majority of supervisors (54 percent of those responding to the respective question) stated as well that they maintained fairly close contact to the fellows. 8 percent did not keep any contacts at all, 12 percent only limited contacts. The slightly lower proportion of the supervisors' stating close contracts to fellows (see Table 115 comprises only the cases when

both the fellows and their respective supervisors responded) is not necessarily inconsistent to the fellows' statements, because some fellows might keep contacts primarily to other persons at the host institution of their fellowship.

Table 115
Maintaining Contacts by Supervisors and Fellows (percent and mean of those fellows and supervisors who both responded to the survey)

	Maintaining contacts to fellows by supervisors	Maintaining contacts to the host lab. by fellows
Close links	36	44
2	26	25
3	23	16
4	11	9
No contacts at all	5	5
Total	100	100
(n)	(813)	(913)
Mean	2.2	2.1

Question 3.13: Do you maintain contacts with your fellow?
Question 6.7: How useful do you rate contacts with the host laboratory for your current research activities?
Source: Survey on supervisors and survey on fellows

Table 116
Usefulness of Contacts to the Host Laboratory for Fellow's Research at the Time of the Survey, by Time Elapsed Since Completion of the Fellowship (percent and mean of respondents who had completed the fellowship)

	Time elapsed since completion (months)						Total
	1 -6	7 - 12	13 - 24	25 - 36	37 - 48	49 and more	
Very useful	56	55	41	36	34	33	42
2	21	19	21	20	19	23	21
3	15	14	16	21	18	16	16
4	5	5	13	13	16	13	11
Useless	3	6	8	11	13	15	10
Total	100	100	100	100	100	100	100
(n)	(212)	(201)	(263)	(173)	(158)	(277)	(1,284)
Mean	1.8	1.9	2.3	2.4	2.5	2.5	2.2

Question 6.7: How useful do you rate contacts with the host laboratory for your current research activities?
Source: Survey on fellows

Also about two-thirds of the former European fellows considered the contacts to the host institution as quite useful (1 or 2 on scale from 1 = "very useful" to 5 = "useless") for their current research activities. 10 percent considered keeping contacts of that kind as completely useless, and a further 11 percent noted hardly at most limited utility (scale point 4). As Table 116 shows, the rating of the utility of contacts with the host institution was less strongly linked to the time elapsed since the completion of the fellowship than the actual extent to which contacts was kept.

More than half of the supervisors considered the continued contacts with the European fellows as quite useful (56 percent responding scale points 1 or 2) for the host institution. Again, the assessment of the utility of contacts closely corresponded the extent to which contacts actually were kept.

Table 117
Assessment of Usefulness of Contacts for Further Research by Supervisors and Fellows (percent and mean of those fellows and supervisors who both responded to the survey)

	Assessment by supervisors	Assessment by fellows
Very useful	38	45
2	26	22
3	21	15
4	10	10
Useless	5	9
Total	100	100
(n)	(812)	(878)
Mean	2.2	2.2

Question 3.14: Do you rate contact with the fellow after the fellowship period as useful for the research activities of your lab?

Question 6.7: How useful do you rate contacts with the host laboratory for your current research activities?

Source: Survey on supervisors and survey on fellows

More than one third of the supervisors reported that they continued to conduct research in co-operation with the fellows. Eight percent of the supervisors even reported that EU support was available for this continued support, while others had applied for funds or used funds of the host institution for this continued co-operation.

Some supervisors expected to formulate a joint project with the fellows in the future. Finally, slightly more than half of the supervisors had no plans for joint project work with the former fellows. This does not mean that all of them ruled out further co-operation. Actually,

- 17 percent stated that they were not sure whether they would continue to cooperate or that it was too early to say,
- 26 percent chose the response category "probably not", and
- 10 percent "very definitely not" (see Table 118).

Table 118
Supervisors' Future Plans for Joint Research Work with the Fellow, by Type of Programme (percent; multiple reply possible)

	Type of programme				Total
	HCM	Predec. of HCM	Other progr. starting since 1992	Other progr. starting prior 1992	
Yes, work now in progress without EU support	36	27	33	24	28
Yes, work now in progress with EU support	9	4	12	8	8
Yes, proposal has been submitted to EU for funding	10	5	11	6	7
Yes, proposal has been submitted to another agency	8	4	8	4	5
Expect to formulate a joint project	16	10	21	13	14
Not sure/too early to say	21	16	19	16	17
Probably not	18	28	12	30	26
Very definitely not	4	13	5	12	10
Total	122	109	121	113	115
(n)	(482)	(364)	(75)	(827)	(1,748)

Question 3.11: Do you have any plans for joint research work with the fellow?

Source: Survey on supervisors

29 percent of the supervisors stated that they visited the fellow afterwards. 19 percent expected to undertake such a visit in the subsequent year, and a further 7 percent expected that contacts will be maintained through a visit of the supervisors' colleague at the former fellows' current institution.

7.7 Factors Influencing the Outcomes of the Fellowship

The data collected allow us to examine how the various characteristics of individual fellows, programmes, institutions and countries actually contributed towards successful outcomes of the fellowship period abroad. Due to the special design of this study it is not only possible to base the analysis on the statements of the fellows themselves but also on the views of their supervisors. To make use of both data sets in the multivariate statistical analysis, it was necessary to match data provided by fellows with data provided by their respective supervisors. As a consequence of this procedure, fellows of whom the supervisor did not return the questionnaire were excluded from the analysis and vice versa.

Questions posed include: are the individual reasons for the research period abroad, the extent of prior experiences abroad, the duration of the fellowship period or the scientific quality of fellows and supervision crucial for the immediate results of the fellowship or for further career and scientific opportunities?

Both the concepts underlying this study and a factor analysis of the various outcome measures helped us to select criteria for the statistical analysis designed to identify some of the key factors to successful research periods abroad. The measures chosen for an in-depth statistical analysis covered aspects of

- scientific work,
- career and employment, and
- international competences.

Chart 11 provides a model of factors which might help to explain different outcomes of fellowship periods abroad. The three main strands of the model are the

- characteristics of the fellows, i.e. their knowledge, attitudes and personal capacities;
- characteristics of programmes, institutions and countries, i.e. the profile of the fellowship and the conditions under which the fellowship had to be carried out; and the
- experiences and activities of fellows.

These main strands are divided into several domains and dimensions which empirically were represented each by a number of factors and variables. Altogether, more than 50 factors and variables were tested in a multivariate regression analysis to elaborate their potentials to explain the variation in the outcome measures. Additionally, the overall degree of explanation of variation in the nine outcome measures were delivered by the analysis.

The regression analysis undertaken shows that the factors explain

- 37 percent of maintaining contacts with host laboratory,
- 35 percent of retrospective preference of EC fellowship,
- 27 percent of improvement of links to industry,
- 26 percent of current position,
- 26 percent of improvement of international competences,
- 25 percent of establishment of scientific reputation,
- 20 percent of improvement of career advantages,
- 15 percent of number of publications resulted from the fellowship immediately after return,
- 14 percent of current employment in business enterprises.

These percentages are quite high as regards some of the measures, if we take into account similar analyses in other social science studies. However, as a considerable amount of the variation remains unexplained, other - possibly co-incidental - factors must play a part as well.

A detailed list of factors used in the multiple regression as well as an indication of the direction and significance of influence of factors with respect to the various outcome measures is presented in Table 119. By and large, there is a clear link between outcomes and factors representing the same dimension. For example, the perception of career advantages through the fellowship is highest among fellows who stated this aspect as an important reason for going abroad. The same is true for the improvement of international competences. Fellows who stated this issue as important for their decision to apply for an EC fellowship, most often reported about a considerable improvement of international competences. A third example of this kind is the improvement of links to industry which strongly corresponds with the relevance of the research project to this sector.

Chart 12
Outcomes of the Fellowship Period Abroad for the Fellows - an Explanatory Model of Potential Factors

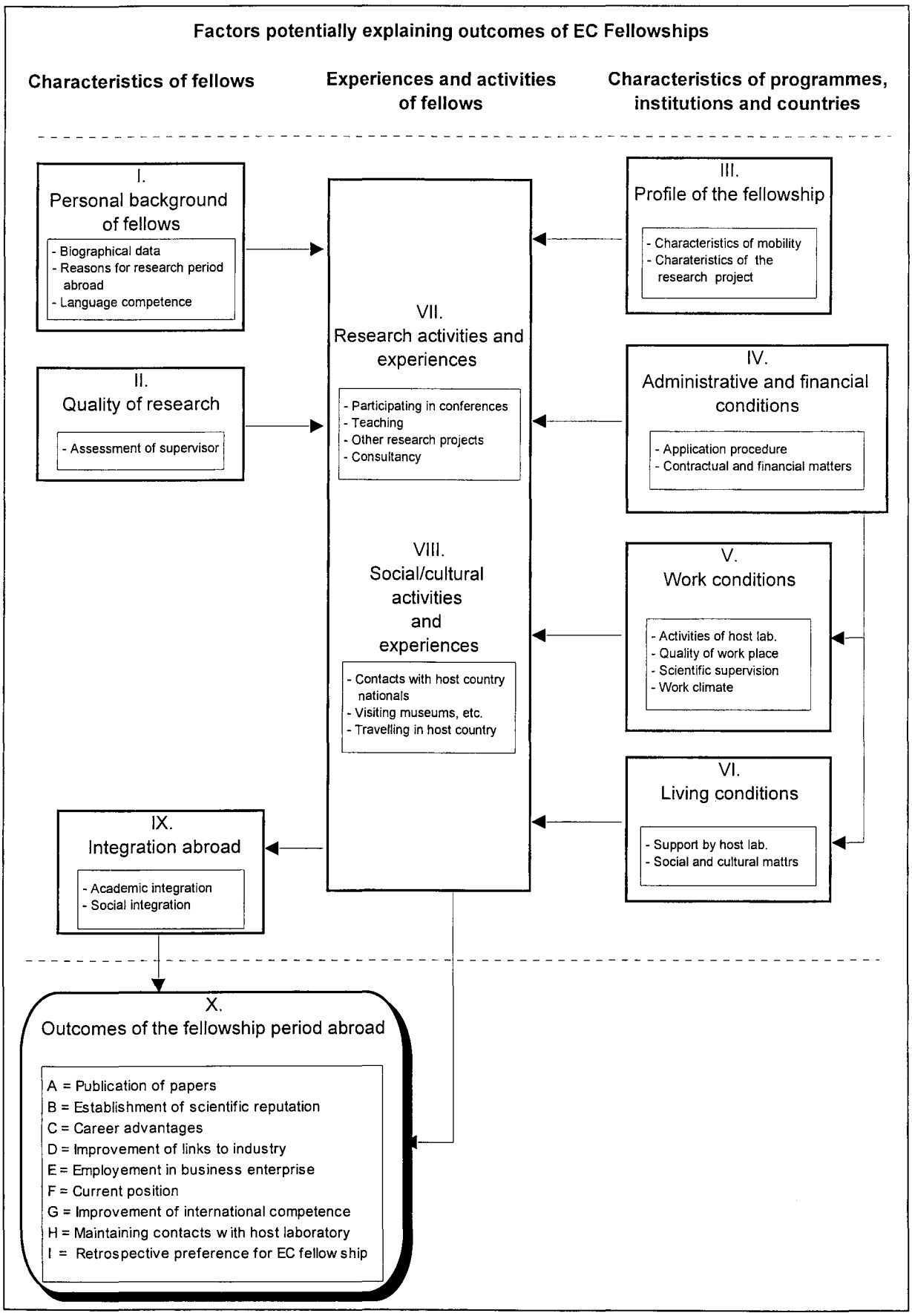


Table 119
Contribution of Factors in Explaining Outcomes of EC Fellows' Research Period Abroad

	X. Outcomes of the EC fellowship								
Factors explaining outcomes	**A** Papers	**B** Reputat.	**C** Career	**D** Industry	**E** Business	**F** Position	**G** Intern. Comp.	**H** Contacts	**I** Retrosp.
I. Personal background of fellows									
Age		(++)				(++)		(++)	
Gender (Female/Male)							(F:++)		
Prior experiences abroad (months)							(--)		
Reasons for research period abroad:									
- Quality of host laboratory/supervisor		(+++)				(++)			(++)
- Improvement of international competence							(+++)		
- Improvement of career prospects			(+++)						
- Continuation of research in the same area									
Low language competence at the beginning							(++)		(++)
II. Quality of research									
Quality of research conducted by the fellow as assessed by the supervisor	(+++)			(---)			(-)	(+++)	
III. Profile of the fellowship									
Home country					(DE:+)	(DE:--) (IT: --)			
Host country					(GB:-)				
Type of fellowship (junior/senior)	(S:+)			(S:--)		(S:+)			
Type of RTD programme (HCM, other)									
Time left since the end of the fellowship					(+)	(+++)		(---)	
Duration (months)	(++)		(++)						
Discipline	(ENG +)			(ENG ++)	(EAR +)	(ECO ++)			
IV. Administrative and financial conditions									
Sufficiency of information about EU research programmes									
Difficulties in finding/being accepted by host lab.									
Timing of application (months prior departure)									
Timing of notification (months prior departure)									
Type of work contract (regular/other)									
Way of money transfer (Commission/host lab.)									
Positive assessment of level of support			(++)				(++)		
Difficulties with reimbursement of costs									
Administrative difficulties with the EU									
Difficulties with extension of the fellowship						(--)	(+)		

Factors explaining outcomes	X. Outcomes of the EC fellowship								
	A Papers	B Reputat.	C Career	D Industry	E Business	F Position	G Intern. Comp	H Contacts	I Retrosp.
V. Work conditions									
Role of host lab. in the area of specialisation									
Relevance of activities with respect to industry				(+++)	(++)				
Open access to resources at the host lab.	(++)								
High quality of equipment									
High quality of scientific supervision								(++)	(+++)
Problems of scientific nature with supervisor									(--)
Weekly hours spent on supervision									
High quality of co-operation with colleagues									
High quality of work climate									(+++)
VI. Living conditions abroad									
Support by host laboratory as regards									
- finding accommodation									
- establishment of social contacts									
- establishment of professional contacts outside the host lab.		(++)	(++)					(++)	
Living together with partner									
Problems of contacts and communication with host country nationals		(-)		(--)					
Difficulties with food and/or climate									
Financial or administrative difficulties							(+)		
VII. Research related activities									
Participation in conferences									
Teaching									
Consultancy									
Other research projects									
VIII. Social and cultural activities									
Contacts with host country nationals/colleagues	(+)								
Visiting museums, theatre, etc.									
Travelling in host country									
IX. Integration abroad									
Academic integration		(+)						(++)	
Social integration									

Positive effects: (+++) significant on a level $p < 0.001$
(++) significant on a level $p < 0.050$
(+) significant on a level $p < 0.100$

Negative effects: (---) significant on a level $p < 0.001$
(--) significant on a level $p < 0.050$
(-) significant on a level $p < 0.100$

Other important factors explaining the outcomes of the fellowship period abroad are:

- *Age at the time of the fellowship*: Being older at the time of the fellowship is significantly related to the enhancement of scientific reputation, a high position in current employment and finally to keeping close contacts with the host laboratory.
- *Selection of host laboratory or supervisor because of reasons of quality*: Fellows who stated the quality of the host laboratory or their supervisor as an important selection criteria were most convinced that the EC fellowship had contributed to the establishment of their scientific reputation. They often were in high positions at the time the survey was undertaken and would prefer the EC fellowship again if they could turn their life back to the time prior to the fellowship.
- *The quality of research conducted by the fellow*: This measure, based on the assessment of the supervisor, turned out to be the major factor in explaining the number of publications as immediate results of the EC fellowship. Taking into account that continued contacts with the host laboratory after return from the fellowship period abroad is also mainly depending on the quality of research of the fellow, this issue has to be considered as extraordinarily important. However, it is also worthwhile to mention that quality of research is negatively correlated with the improvement of links to industry.
- *Quality of scientific supervision*: The higher the quality of scientific supervision was assessed by the fellows, the more often fellows maintained contacts to the host laboratory after return and the more often they would prefer the EC fellowship again in retrospect.
- *Duration of the fellowship*: It is not surprising to note that the duration of the research period abroad is likely to have an impact on the number of publications resulting from the fellowship. The longer the fellowship lasted, the higher was the number of publications stated by the fellows. On the other hand it is by no means a matter of course that the perception of career advantages due to the EC fellowship increased with the length of the stay abroad.
- *Support of host institution in establishing professional contacts*: The support provided by the host laboratory in establishing professional contacts beyond the host lab itself turned out to be linked to various outcomes of the fellowship period. Fellows assessing this kind of support positively believe more strongly that the fellowship contributed to their scientific reputation, helped to get employed immediately after the fellowship, and they kept more frequent kept contact with the host laboratory than those who received little support for establishing outside professional contacts.

By and large, the main factors identified by the regression analysis as influential for the outcomes of the EC fellowship period are similar as those identified in the previous study in 1990.

Although a few differences in the outcomes of the fellowship period abroad can be observed by country and by discipline, these factors did also not play an important role as well as the administrative and financial conditions of the fellowship or matters of living abroad. The only significant influence of gender could be observed as regards the improvement of international competences which was considered clearly higher by female than by male fellows.

Finally it is worthwhile to mention that a retrospective preference for the EC fellowship, and not for another fellowship outside the EU, was clearly linked to the quality of supervision and the quality of work climate at the host laboratory. Thus, the work conditions at the host laboratory might play an important role not only for the results of the research projects but also in shaping an European identity and in avoiding brain-drain of European scientists.

8. Summary

8.1 The European Research Fellowships

Fellowships for young researchers in science and engineering to spend a period of research training in another European country have been already provided by the European Commission since 1958. The total number of fellowship awarded was more than 5,500 until the mid-1990s. In recent years, the number of fellowships has substantially increased. The annual number of fellowships, actually, grew from less than 100 per year until the early 1980s to several hundreds since the late 1980s and eventually to more than 1,000 for the first time in 1993.

Fellowships used to be provided either as "sectorial grants", i.e. grants allocated in the framework of research promotion schemes for specific research areas, or through general fellowship programmes, called for example STIMULATION and SCIENCE. In 1992, the decision was taken to establish a large programme of the latter kind, i.e. the HUMAN CAPITAL AND MOBILITY programme. This programme was not only aimed to provide support for a larger number of young researchers, but also to increase the financial support, to improve the social benefits and employment conditions, to facilitate processes of financial management, to improve academic support and work conditions, and to widen the disciplinary areas to be supported, and, thus, to make mobility of young researchers in Europe more attractive and beneficial in general. The same regulations and provisions were also applied to grants provided in the context of other research programmes.

8.2 Aims and Procedures of this Study

The European Commission provided support to the Centre for Research on Higher Education and Work of the University of Kassel for undertaking surveys on recent developments of the European research fellowships. Written questionnaires were sent to almost all fellows who were awarded an European fellowship between 1987 and 1993 and actually went to another European country until early 1995 at the latest, as well as to their supervisors at the host institutions and to the administrators at the host institutions in charge of the fellows. Excluded from this study were fellows who were not awarded an "individual", but rather an "institutional fellowships", i.e. those completely left to the administration of the host institutions, as well as their supervisors and administrators.

Actually, 1,984 of the 3,853 respective fellows, and 2,124 of the 3,083 supervisor questionnaires were returned between summer 1995 and early 1996. After excluding those for whom no valid addresses could be established, the return rates turned out to be 61 percent for the fellows and 71 percent for the supervisors - a unexpectedly satisfactory return. The 700 administrators responding comprise only 30 percent of those sent a questionnaire. Their institutions, however, hosted 2,349 fellows, i.e. 61 percent of those addressed in the survey.

The survey addressed the biographic and professional profile of the fellows and their supervisors, the choice of the EC fellowship and prior contacts to the host institution, the bursary, the administrative process regarding the fellowship as well as the financial arrangements, the fellows' professional experiences at the host laboratory, living conditions and life in the host country, employment and career after completion of the fellowship, perceived impacts, as well as general comments on the European research training fellowship programme. Some of these themes were also addressed in the supervisors' questionnaire. In addition, they were asked to provide more details about the host institution and to assess to quality of the fellows' research work.

The authors of the study had already undertaken a prior survey in 1989 on European research fellows mobile mostly from the late 1960s to the mid-1980s. This study provided information to the Research/Training Fellowship Evaluation Panel whose recommendations formulated in 1990 eventually served as the basis for the establishment of the HUMAN CAPITAL AND MOBILITY programme. As several questions posed in the prior survey were identical or similar to those posed in the recent survey, this study could examine in which areas recent fellows in fact noted an improvement.

8.3 The Fellowship Programmes and the Participants

The number of proposals for a research fellowship increased from more than 500 in 1987 to almost 4,000 in 1993. As the actual awards grew during that period from 313 to 1,200, the competition ratio clearly increased.

One tenth of the fellows approved by the European Commission decided to reject the fellowship for various reasons. This proportion is substantially lower than the 24 percent of applicants who declined the award from the late sixties to the mid-eighties and fellowship obviously gained attractiveness. The remaining quota of 10 percent rejected, however, cannot be viewed without concern, notably since it increased in 1993, i.e. with the enactment of HCM.

The average duration of fellowships addressed in this survey was about 21 months, whereby periods of extension as well as periods granted but actually not taken were included. This average period was almost twice as long as in the preceding decades. While the duration was quite dispersed around 1990, a period of two years became more or less the regular mode recently. Actually, 18 percent of the fellows applied successfully for an extension of about nine months on average, while 10 percent applied for but were not granted extension. Both, fellows and supervisors considered a fellowship period of about 25 months on average as desirable.

About 40 percent of the fellowships were awarded for projects in the field of life sciences. A further 19 percent were granted in physics, 12 percent in chemistry, 10 percent in engineering, 9 percent in earth sciences and about 5 percent each in mathematics and in economic fields, social sciences and humanities. It should be noted that the latter disciplinary group only recently became eligible for support.

The distribution of fellows by home country and country of the host institution certainly reflects the size of the population, but do not closely correspond to it. Most fellows came from Germany (16 percent), France (16 percent), Spain (14 percent), Italy (14 percent) and Greece (10 percent). The United Kingdom hosted about one third and France about one quarter of the fellows, followed by Germany (10 percent), Belgium and Italy (8 percent each). Switzerland and the United Kingdom hosted far more fellows and France, Belgium, Norway, Denmark, the Netherlands and Sweden somewhat more than they sent. In contrast, Greece, Portugal, Spain, Austria and Ireland sent more than twice as many and also Germany and Italy sent clearly more students than they received. It should be noted in this context that only about 5 percent on the fellows of this period supported by an individual fellowship went to Joint Research Centres.

More than half of the fellows were 26-30 years and more than a quarter 31-35 years old when they went abroad. The average age was 25 years for student fellows, 27 years for post-graduate fellows, 31 years for post-doctoral fellows, and 37 years for experienced researchers.

About half of the fellowships awarded between 1987 and 1993 were on post-doctoral level, 40 percent on graduate level, while only 1 percent received support as students and 3 percent as experienced researchers. Actually, about half each held and did not hold a doctoral degree at the time they embarked the fellowship period. During the period analysed, the

degree at the time they embarked the fellowship period. During the period analysed, the proportion of post-doctoral fellowships among all fellowships awarded increased from 16 percent to 70 percent.

About one third of the fellows successfully applying for an individual EC fellowship between 1987 and 1993 were female. The ratio of women ranged from 42 percent in life sciences to 18 percent in physics, while no difference can be observed as regards the type of fellowship awarded.

About two-thirds of the fellows reported that they lived abroad for a substantial period prior to the fellowship. Actually those who had already lived abroad - mostly for study, doctoral or post-doctoral work - had spent more than two years on average in other countries, among more than one quarter of the time on average in the host country of the fellowship. This suggests that EC research fellows are a highly (self) select group in this respect.

About one third of the fellows responding to the questionnaire lived together with a partner or spouse and 14 percent had children prior to the fellowship period abroad. Almost all of them took their partner or spouse and their children with them to the host country.

58 percent of the fellows were hosted by an institution of higher education, 29 percent by a public research institute, and 6 percent by a private research institute. Only 7 percent spent the fellowship period at other institutions.

Supervisors were mostly in senior positions and had above-average administrative load. It is worth noting that 14 percent were not nationals of the respective host country.

8.4 Choice of the Training Fellowship

Only about one third of respondents were employed prior to embarking the European research period. A sixth had another fellowship immediately before the EU grant. The largest proportion were students, graduate students and doctoral candidates without being supported through regular employment or fellowship. Four percent considered themselves unemployed. Changes of prior status over the years surveyed obviously reflect growing employment problems on the labour market for researchers.

The fellows got to know about the research fellowship from a broad range of sources, whereby the future supervisor of the host institution was the single most frequent source of information (28 percent). In contrast, fellows of previous decades had been most often informed by their home supervisors. In recent years, the European Commission played a lesser part as direct source of information than in the past. This fits the Commission's policy of spreading the information through varied channels, among others through national contact points or the administration of universities and research centres.

More than half of the fellows got in touch with the host laboratory through existing ties between the home and the host institutions. About half of the supervisors knew the fellows prior to the application, whereby in all these cases the fellows visited the host institutions in advance in order to establish contact.

93 percent of the supervisors considered the research project undertaken by the fellows as clearly linked to their own area of specialisation and 77 percent as linked to the area of specialisation of the host institution. Actually, about two-thirds of the supervisors reported that they had initiated - in most cases only themselves possibly together with colleagues of their institution and in a few cases together with the fellows and their home supervisors - the project the fellows eventually undertook when they were awarded the fellowship.

61 percent of the fellows considered their host institution as one of the few institutions matching their area of specialisation. 36 percent viewed it as one of several suitable places,

and only three percent stated that it did not fit well. Altogether, the match was rated closer than by fellows from previous decades.

Only 15 percent had stated that they wished to undertake research work relevant to industry while being supported by a European fellowship. Similarly, 15 percent actually considered their research activity to be of direct interest of industry. The latter proportion was clearly higher than among previous fellows.

The European fellows named various motives for their decision to apply for a fellowship. As one might expect, almost all fellows named enhancement of scientific knowledge as one of their major motives for going abroad with the help of an European research fellowship. Almost three quarters wanted to acquire international experience, and the same proportion of fellows hoped that their long-term career prospects were improved by the fellowship. In comparison to fellows of prior decades recent fellows stated by far more frequently that the high reputation of the host laboratory (61 percent as compared to 36 percent in the past) as well as the attractive conditions of the European fellowship and of the work at an institution in another European country (59 percent as compared to 41 percent) played a major role for their decision to apply.

More than three quarters of the European research fellows had considered other options as well at the time they applied for the fellowship, notably employment in the home country and other fellowships for research abroad. Almost half actually applied for other fellowship. In earlier decades, as many graduates as in recent years considered other options but only about a quarter had applied for other fellowships.

8.5 Experiences during the Fellowship Period

In addition to research in the project applied for, 22 percent of the fellows were involved in additional research projects while being in another European country. 13 percent took over teaching assignments, and 4 percent were active in consultancy. Their supervisors were aware of about three quarters of the additional activities.

Almost all fellows had the opportunity of participating in workshops and conferences. This was realised most often in the host country, but also by more than half of the fellows in other European countries and by about one third each in the home country as well as outside Europe. Only 10 percent reported that they did not attend any conference or workshop at all during that period.

More than two-thirds of the European research fellows worked in a research team with colleagues from the host institution and other fellows. Of the remaining, about half each worked only with other fellows and on their own, possibly in co-operation with the supervisor. The research teams comprised on average six other researchers, among them five staff members of the host institution.

The fellows used on average almost two languages for professional purposes at the host institution. The host country language was predominantly used not only in the Anglophone and Francophone countries and regions but also in Spain and Italy. In all other countries, English was primarily employed, though the use of German and Portuguese was not negligible in the respective countries and regions. A substantial proportion of fellows put effort in learning the host country language. Three quarters of those not going to an Anglophone country rated afterwards their proficiency in the host country language as good.

Almost three quarters of the fellows rated the supervision as good. Only 4 percent reported substantial and 8 percent moderate problems of a scientific nature with their supervisor. Supervisors stated almost exactly as often problems with their fellows, predominantly regarding the fellows' competencies and productivity. Three quarters each as well rated the co-

percent of the fellows rated the quality of equipment at their work place as above average of the standards prevailing at the host institution. 33 percent assessed it as average, and only 8 percent as below average.

Altogether, the assessment of the conditions for research conducted by European research fellows during the fellowship period abroad turned out to be very positive. It is worth noting that the ratings were consistently more positive than those by fellows of previous decades which had been surveyed some years ago.

A substantial number of the European research fellows received social and professional support from their host laboratory while being abroad. About half each of the fellows stated that the host institution helped considerably with administrative matters (e.g. taxes, social security and registration) and with finding accommodation. More than one third of the host institutions helped, according to the fellows, as regards professional contacts outside the host institution, and almost one third with social contacts and activities in general.

More than 60 percent of the research fellows each stated that they had frequent contacts with colleagues of the host institution and with other people in the host country. Serious problems were named each by about one tenth of the fellows responding regarding financial matters, administrative matters with the host laboratory, as well as with local authorities, accommodation, living away from family and climate. Finally about three quarters of the European fellows felt well integrated into the academic life at the host institution and about half into the social life in the host country.

The recent European fellows rated the support regarding professional and social contacts more positively than fellows of prior decades and actually noted fewer problems in this respect. In contrast, recent fellows noted lesser support in administrative matters and accommodation, and in fact stated more often problems in those respects than their predecessors.

8.6 Financial and Administrative Issues of the Fellowship

The European research fellows had applied for the fellowship on average 9.8 months before they actually went abroad. On average, they were notified about the award 3.4 months before they went abroad. Thus, the average duration of the award procedure was 6.2 months. With the introduction of HCM, the duration of the award procedure increased from about six to about eight months.

The late timing of the award decision was the single most frequently criticised problem on the part of the fellows (37 percent), followed by late timing of financial support (27 percent). In both respects, fellows awarded a grant since 1992 stated more frequently critique than fellows awarded the grant around 1990, and these clearly more frequently than fellows going abroad in earlier decades. A significant number of recent fellows actually seem to have postponed their stay abroad due to late information. Also, the administrators at the host institution in charge of the European research fellows criticised the late notification as regards the start of the fellowships (46 percent) most frequently, followed by critique about the late arrival of financial support for the host institution (35 percent) and for the fellows (28 percent).

Almost three quarters of European fellows actually received the amount of support they had applied for. 21 percent were awarded support for a shorter period than they had applied for. There were some cases as well of a smaller monthly grant or an award of a lower category of fellowship. In a few cases, fellows even were supported for a longer period, in a higher category and with a higher amount of grant they actually had applied for.

Of the fellows supported since the implementation of the Human Capital and Mobility Programme, more than one third were regularly employed by the host institution and about half had a special contract for fellows. Still, a quarter had no contractual relationship at all. The

Of the fellows supported since the implementation of the Human Capital and Mobility Programme, more than one third were regularly employed by the host institution and about half had a special contract for fellows. Still, a quarter had no contractual relationship at all. The latter quota declined from about 40 percent around 1990, while regular employment had been an exception at that time. Since 1992, the Nordic countries opted most often for a regular employment contract. In contrast, special contracts for fellows prevailed in Germany, Belgium, the United Kingdom and some of the Mediterranean countries as such as Italy, Greece and Portugal. Fellows without any work contract were most frequent in Italy. As the information provided by the administrators showed, many host institutions shifted the contractual modes with their fellows after the inauguration of the HCM scheme. Very few host institutions provided their fellows a choice between different types of contracts.

Doctoral fellows stated around 1990 that they received about 1,600 ECU for living expenses (i.e. after deduction of eventual taxes and social benefits). The amount increased since 1990 by 8 percent to about 1,700 ECU. The support for post-doctoral fellows' living expenses increased from more than 1,800 ECU by 25 percent to almost 2,300 ECU since 1992. 11 percent of the fellows used additionally other means to fund their fellowship period in another country which covered on average only 2.3 percent of the total expenses abroad. Fellows were more likely to be satisfied with the fellowships if they did not have substantial deductions for health, pension, tax, etc., and administrators pointed out that fellows employed by the host institution had expected a higher net income.

The proportion of fellows participating in health insurance (67 percent since the introduction of the HCM programme), pension schemes (39 percent) and unemployment insurance (25 percent) has increased over the years. Also, support for travel to conferences or for visits to other institutions and for the research expenses at the host institution improved over the years. The question might be appropriate, though, whether the heterogeneity of conditions in these respects is a virtuous expression of flexibility or sign of too much risk left to the individual case.

Altogether, two-thirds of the fellows surveyed considered the bursary provided as generous, while only 7 percent expressed clear dissatisfaction. This assessment by recent fellows was clearly more positive than by fellows from preceding decades. Even more than three quarters of the supervisors considered the fellowships as generous.

Financial changes implemented in 1992, however, met with mixed responses. As one might expect, favourable ratings by post-doctoral fellows increased from around 1990 to most recently, while those by doctoral fellows slightly declined. Supervisors more often reported most recently than around 1990 that funds for research costs were actually provided, but, instead, more often considered those funds as insufficient. Actually, 60 percent of the supervisors suggested that all laboratory costs (material, equipment etc.) related to the hosting of fellows should be covered by the European Union.

Administrators at the host institutions in charge of almost three quarters of the fellows claimed that the net grant of European fellows was higher than the income of local staff in a corresponding position. Some stated that the generous support for the fellows created feelings of imbalance between fellows and local staff. Like the supervisors, most administrators considered the financial support for the host institution as too low. Of the institutional support actually 56 percent was used on average for research costs, 15 percent for fellows' travel and 23 percent for the administrative costs of the host institution. They suggested on average a support for the host institution of about 17,000 ECU per fellow per year or of somewhat more than a quarter of the total financial support per fellow, whereby most of them preferred a fixed sum per fellow per year to a proportion of the fellows' grants or to a reimbursement of actual costs incurred.

decision, whereby one should take into account that only 28 percent had applied for an extension.

Other administrative problems were stated less frequently. 12 percent of the fellows noted serious problems in established initial contacts with the European Commission, and similar proportion each with getting reimbursed travel expenses or removal costs by the host institutions. Regarding all administrative matters addressed in the survey, serious problems were more frequently voiced by recent fellows than by fellows of preceding decades. Only the co-operation with the prospective host institution in the application process seems to have been almost without any serious complications in the past as well as in recent years.

The supervisors were asked to express their views regarding administrative matters only in respect to the application process. They actually voiced criticism in various respects: 42 percent considered the preparation of the application as too time-consuming, 54 percent criticised the selection criteria as not sufficiently transparent, and 61 percent viewed the application and award procedure as too long.

Some administrators, in addition to their critique of late timing of decisions and late provision of financial support, felt a need to improve the communication between the Commission and the research institutions. 10 percent noted serious problems in getting initial contact with the Commission, 20 percent in identifying the responsible officials in the Commission and 19 percent in receiving the necessary information from the Commission.

8.7 Outcomes

The high degree of satisfaction with the research abroad on the part of the former fellows was expressed in response to a question what they would prefer if they could turn their life back again to the time prior to the fellowship. Three quarters of the European fellows surveyed actually responded that they would chose again to fellowship for a research period in the same host institution. Among the fellows going abroad from the late sixties to the mid eighties, only slightly more than half would have opted for the same choice.

Also supervisors were mostly satisfied. 72 percent viewed the quality of research work conducted by the European fellows during their fellowship period as above average of the standards prevailing at the host institution, and only 7 percent as below average. 77 percent rated the fellows' work as useful for the programme of the host institution, and only 6 percent as not important. Finally, asked what they would do if they could decide again, 71 percent of the supervisors stated that the fellows would be accepted again definitely and 20 percent that the fellows would probably be accepted.

Among those fellows having completed the fellowship at the time the survey was conducted (74 percent of all respondents), about three quarters each reported that papers published in refereed journals and papers presented at conferences were the immediate academic achievement of the fellowship. Almost one quarter named other publications and three percent patents applied for or granted. Only three percent stated that there were not any visible immediate achievements of the research period in another European country. Actually among those not having been awarded a doctoral degree prior to the fellowship period, 78 percent reported the award of higher degree as a consequence of their research period in another European country. The immediate achievements of the research period abroad reported by the fellows questioned in this survey were clearly more impressive in quantitative terms than those by fellows going abroad from the late sixties to the mid-eighties who had responded to the previous survey. The responses indicate a very close co-operation between the fellows and their supervisors at the host institution. Supervisors stated that they had spent 4.6 hours per week on average on the supervision and co-operation with the fel-

tween the fellows and their supervisors at the host institution. Supervisors stated that they had spent 4.6 hours per week on average on the supervision and co-operation with the fellows. Actually, more than 80 percent of the publications resulting from the fellowship period during the first few subsequent years were joint products.

The transition to employment after the fellowship period in another European country obviously is an issue of concern. Shortly after the completion of the fellowship, only about half of fellows were employed or self-employed. About a quarter were supported by another fellowship, 13 percent were unemployed, and 11 percent undertook study funded by their own (or their families') means. Thereby, doctoral fellows faced more problems than post-doctoral fellows.

Some fellows not being employed immediately after the fellowship in another European country took up employment within a few months, but the process obviously was not smooth for all of them. Among those fellows who had completed their fellowship period two to three years prior to the time the survey were conducted, 70 percent were employed or self-employed at the time surveyed, while 18 percent were funded by another fellowship, 5 percent undertook self-supported study, and 7 percent were unemployed.

The changing academic labour market certainly comes into play, if we look further back and compare the whereabouts of fellows supported on graduate level: only 5 percent of these fellows going abroad between the late sixties and the mid-eighties reported were unemployed shortly after the completion of the fellowship period, 6 percent of those who went abroad around 1990, but 14 percent of those who went abroad since 1992. Similarly, the proportion of those undertaking self-supported study shortly after the fellowship period increased from 14 percent to 16 percent and most recently to 30 percent.

Most fellows became professionally active in institutions of higher education and research institutions. In contrast to more frequent claims made by fellows in recent years that research at the host institution was relevant to industry, the European research fellowships had led more frequently to private employment in the past than they did in recent years. Among European research fellows going abroad from the late sixties to the mid-eighties, 19 percent went shortly after the fellowship period to private enterprises. Among those surveyed in this study, only 5 percent went to private enterprises and 6 percent to private research institutes.

The European research fellowship programme certainly contributed to European and international mobility. Shortly after the fellowship period, 46 percent of those academically and professionally active were in another than their home country. At the time the survey was conducted, still 42 percent were abroad. This is a substantial increase to previous fellows. Of those who went to another European country with the help of a European fellowship in preceding decades, 28 percent lived abroad shortly after the fellowship and 30 percent at the time the survey was conducted. Among recent former fellows, those continuing study or supported by the a fellowship were more likely to live abroad than those who get employed.

The European fellows rated the outcomes of the fellowship for themselves very positively. 89 percent stated that the fellowship period in another European country helped them to became internationally more aware. 92 percent noted an improvement of their general scientific and technical competence, 89 percent stated that it helped to establish international research contacts, and 76 percent observed that the fellowship period had helped them to establish their scientific reputation. 66 percent reported an improvement of social and communication skills due to the fellowship period abroad. The professional value of the fellowship period in another European country was rated positively, though not the extent the academic value was assessed. 74 percent perceived a career advantage in academic research, 51 percent a help in getting employed immediately after the fellowship period, and 26 percent a career advantage in industry.

Advantages for academic careers and for getting employed immediately were stated more frequently by fellows recently surveyed than by previous fellows. Even if the tighter labour market has led to increased employment problems and the early employment was less impressive than in the past, the contribution of the fellowship in this respect was highly appreciated.

For about half of the fellows, experience during the fellowship period abroad led to a change of their disciplinary perspective. 30 percent decided to work into a more multi-disciplinary way. 15 percent changed the area of specialisation, and 3 percent changed the discipline. As one might expect, those changes are less often reported by experienced researchers than by doctoral and post-doctoral fellows.

Overall, most fellows perceived the European research fellowships positively in many respects. Almost all believed that they improve the scientific links between European countries and enhance the quality of young researchers in Europe. Three quarters or more stated that the fellowships strengthen the European research capability and contribute to the establishment of international research networks. More than two-thirds of the fellows perceived an enhancement of the image of the European Union with the help of the fellowship scheme. More than half noted an improvement of links between advanced and less favoured regions. Finally, only 17 percent stated that the fellowship scheme contributes to an improvement of links between academic research and industry. In comparing the responses of the fellows addressed in this survey to the responses made by fellows addressed in the previous survey, we note that recent fellows stated more substantial impacts in all respects except one: previous fellows stated a stronger contribution to links between academic research and industry.

Supervisors were posed the same questions. Their responses show that they appreciated the impacts of the fellowship programme even more highly than the fellows themselves. Notably, the supervisors saw a stronger contribution to the image of the European Community than the fellows.

8.8 The Diversity of Fellows

The preceding analysis had put emphasis on the changes of conditions, experiences and outcomes of a research period in another European countries. Therefore, mostly changes of averages over time were presented. Attention was paid as well to major sub-groupings among fellows, for example the type of fellowship which also reflects both the professional status and the professional experience, the gender as well as the home and host countries.

During the period of observation, i.e. from 1987 to the mid-nineties, the awards were clearly shifted. The proportion of fellowships awarded for graduates decreased from 51 percent in 1987 to 25 percent in 1993. In reverse, the proportion of post-doctoral fellowships increased from 16 percent to 70 percent during the same period. Graduate fellows spent on average 24 months on the fellowship and post-doctoral average 5 months less.

The academic supervision, the social setting at the host institution and in the host country, access to resources and the quality of equipment were similarly viewed by graduate fellows and by post-doctoral students. Also the supervisors' views by and large matched those by the fellows. Even the assistance provided by host institutions regarding social and administrative matters did not differ substantially. The only exception in this respect was lesser help for graduate students by the host institution in finding accommodation. Both, the doctoral and post-doctoral fellows expressed a similar degree of satisfaction with the fellowship period in general. The majority of graduate fellows completed their doctoral dissertation in the framework of the fellowship, whereas few post-doctoral fellows headed for a higher degree. It is worth noting that the supervisors rated the post-doctoral fellows' achievements more

positively than those of graduate fellows. Finally, we note that a higher proportion of post-doctoral fellows than of graduate fellows returned to the home country after the fellowship and a higher proportion got employed upon completion of the fellowship period.

The experienced researchers clearly differed in their activities and experiences from the graduate and post-graduate fellows. They spent on average about 10 months at the host institution, i.e. the period lasted about half of that of the post-doctoral fellows, and they hardly tried to extend the fellowship period. Many of them initiated the projects themselves. Their reasons for the application for an EU fellowship obviously were different: they appreciated less frequently the conditions of the fellowship and were less often inclined to strive for general learning, such as foreign language of improvement and experience of life abroad. They expressed more targeted research-linked motives such as the reputation of the host institution, the co-operation with certain persons and the continuation of research in areas they are already involved in. Many of them remained employed at home; thus, they received on average a smaller monthly grant than post-doctoral fellows.

The co-operation between experienced researchers and their hosts was rated most positively both by themselves and their supervisors. Experienced researchers also assessed the social setting at the workplace and the access to resources at the host institution most positively, but the quality of equipment less favourably. As a matter of course, experienced researchers did expect a lesser impact of the fellowship period on their future academic work and career. It is worth noting that their hosts considered the research work carried out by experienced researchers was less often viewed as useful for the host institution than that undertaken by graduate and post-doctoral fellows.

Altogether, the European research fellowship schemes seems to serve the various science and engineering disciplines in a similar way. However, we note a relatively high proportion of graduate and a relatively small proportion of post-doctoral fellows in engineering. Fellows from mathematics and physics state less often favourable career impacts of the fellowships than their colleagues from other disciplines.

The fellows for economics, social sciences and humanities differed in various respects from those in science and engineering fields. A large proportion of them were awarded a doctoral fellowships. They rated the administrative and professional support by the host institution less favourably. They worked less often in teams, and their co-operation with the supervisors were less close on average. Finally, they rated the impacts of the fellowship most positively and on average seemed to benefit from the fellowships most strongly in terms of subsequent work and career.

As regards the distribution of the fellows by home country and host country, we note by far more uneven picture than for example in the ERASMUS programme. Obviously, the award policy for research fellowships is not aiming for reciprocity of exchange between various European countries.

Fellows going to one of the southern European countries had on average clearly lower expectations as far as the reputation of the host laboratory or a possible improvement of long-term career prospects are concerned than those going to other countries in Europe. Conversely, fellows from Southern European Countries more often named the high reputation of the host laboratory and the hope to improve long-term career prospects as motives for application. Similar differences were expressed in statements regarding the experiences in the host country and regarding the outcomes of the fellowship. On the other hand, social integration and cultural activities were most strongly emphasised by fellows going to various southern European countries.

We neither observe striking differences in the responses of British, French and German fellows nor in the responses of fellows going to these three countries. Above average positive

rating were made in some respects about the fellowship period among those who went to Ireland, Switzerland and Sweden:

- Fellows going to Ireland were most pleased as regards professional support and integration into social and professional life. They noted only few administrative problems. Irish supervisors rated their fellows most positively.
- A high proportion of fellows going to Switzerland praised the conditions for research and the administrative support. It should be noted in this context that about one quarter of the host fellows carried out the research project at the European Centre for Nuclear Research (CERN). Swiss supervisors most often viewed the financial support provided to the host institution as generous, and least often demand that all laboratory costs incurred for the fellows should be covered by the European Union. On the other hand, Swiss supervisors rated their fellows most cautiously.
- Fellows who spent the fellowship in Sweden highly appreciated the research conditions and the administrative support by the host institution. Thus, it is not surprising to note that administrative problems were least often stated. On the other hand, Sweden was least favourably viewed as regards cultural and social experience as well as social integration.

Women were most strongly represented in life science and least strongly in engineering. A smaller proportion of women than men were employed prior to the fellowship and more of the on fixed-term contract and part-time. Women expected on average a higher contribution of the fellowship period to future career. They rated the contacts with supervisors and colleagues less positive on average than their colleagues, and they participated less frequently at conferences. On average, they stated a smaller number of papers and publications as achievements of the fellowship period. Altogether, they rated the impacts of the fellowship period as positively as their male colleagues.

8.9 Concluding Observations

The quantitative enlargement of the support for European research fellowships by the European Commission in recent years was - according to the fellows who benefited from the fellowships and according to their supervisors at the host institution - an academic success story. The academic working conditions, the co-operation during the fellowship period, the quality of the research work undertaken, and the academic achievements upon completion are highly appreciated in most cases. In comparison to the European research fellows from prior decades, the academic conditions and the academic achievements have increased over the years, and the establishment of the Human Capital and Mobility programme has led to further improvement in some respects.

In general, fellows reacted favourably as well to the increased amount of financial support and to various other benefits provided in recent years. Most fellows as well as their supervisors and administrators considered the bursary as generous, and some of the administrators as too high as compared to local staff.

However, some changes enacted with the establishment of the Human Capital and Mobility programme, notably the increased emphasis on employment contracts and respective social benefits, did not meet with more positive responses by the fellows. One might ask whether the decision to provide the same amount of funds per fellowship to the host institutions irrespective whether all is transferred as grants for living costs to the fellows or whether taxes and contributions to pensions schemes, unemployment schemes etc. is the optimal solution.

A substantial proportion of fellows voiced critique regarding the award procedures, the administration by the European Community and various administrative matters managed by the host institution. The assessment both of the management of the fellowship and the administrative support by the host institutions became more negative over time and again worsened

with the enactment of the Human Capital and Mobility Scheme. Also, most supervisors were not happy with the red tape involved.

European and international mobility after the fellowship period in clearly higher in recent years than it had been in preceding decades. One has to take into account, however, that fellows not getting employed after the fellowship are more likely to remain in the host country of the fellowship or to go to another country.

It is obvious that the difficulties for fellows to get employed or to get other kinds of financial support for research activities have worsened somewhat in recent years, This, however, does not challenge the attractiveness of the European research fellowships. On the contrary, these conditions turn out to be comparative advantage for the fellowship, although the fellowship period less often is followed by a smooth transition to employment or other fellowships.

The overall success of recent improvements is clearly indicated that the proportion of fellows who would opt again for this fellowship if they could choose again, had increased substantially and the proportion of those declining the award decreased substantially. The facts, however, that about one fourth of fellows would chose a different option if they could choose again and that about one tenth of those awarded a fellowship actually did not accept it, indicate that there is room for further improvements.

ANNEX

Questionnaire for Fellows

Questionnaire for Supervisors

Questionnaire for Administrators

The Commission of the European Communities
DG XII Science, Research and Development

Upon receipt of this questionnaire your address will be cut off for reasons of data protection

EC Research Training Fellowships 1987 - 1994

Questionnaire for Fellows

Dear EC fellow,

We would like to ask you to inform us, by means of the enclosed questionnaire, about your experience while conducting research abroad as an EC fellow. As you will note, you are asked to provide information about your experiences regarding many aspects of life and work/research in another Member State of the European Union. Your responses to this questionnaire will certainly be beneficial for future support and improvement of the EU-Programme on Training and Mobility of Researchers and other similar programmes

The Centre for Research on Higher Education and Work at the University of Kassel is conducting this survey on behalf of the European Commission. Our Centre has undertaken numerous studies involving students, graduates, academic staff etc. from various countries.

I assure you that any information you provide will be handled strictly according to data protection regulations and only made available to the European Commission, the sponsor of this survey, in an aggregated and anonymous form. The results will not only be made available to the Commission, but also published.

Should you wish to contact us and learn more about the survey, the following people are involved in the project: Kristin Gagelmann, Bernhard Krede, Friedhelm Maiworm and Ulrich Teichler. If you like to be informed about the major findings of this survey, we will be pleased to send a summary in due course.

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1. Basic data

1.1 Profile of fellows

1.1.1 **Year of birth:** 19_____ **1.1.2** **Gender:** ☐ female ☐ male

1.1.3 **What was your nationality when you applied for the fellowship?**

A	B	CH	D	DK	E	F	GR	I	IRL	IS	L	NL	N	P	S	SF	UK	Other:
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐ _____

1.1.4 **Please state your highest level of education at the time you applied for the fellowship and now. Please also state the country(ies) in which the degree was awarded.**

	At the time of application	Now
Short-cycle diploma (less than three years of higher education)	☐	☐
Bachelor's or similar degree	☐	☐
Master's or similar advanced degree	☐	☐
Doctorate	☐	☐
Other: _____	☐	☐
Country in which the degree was awarded	_____	_____

1.1.5 **Did you live abroad for a significant period of time (at least 2 months) before your EC fellowship?**

☐ No		
☐ While in school	country: _____	duration: _____ months
☐ As student	country: _____	duration: _____ months
☐ For doctoral study/thesis	country: _____	duration: _____ months
☐ For post-doctoral research	country: _____	duration: _____ months
☐ Work placement	country: _____	duration: _____ months
☐ Employment	country: _____	duration: _____ months
☐ Other: _____	country: _____	duration: _____ months

1.1.6 **Did/do you live together with your partner/spouse/children immediately before and during your stay abroad?**

	Partner/spouse		Children		
	No	Yes	No	1	2 or more, please specify:
Immediately before stay abroad	☐	☐	☐	☐	☐ _____
During stay abroad	☐	☐	☐	☐	☐ _____

1.2 Profile of fellowship

1.2.1 **In which country did you live at the time you applied for the EC fellowship (your previous or home country)?**

A	B	CH	D	DK	E	F	GR	I	IRL	IS	L	NL	N	P	S	SF	UK	Other:
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐ _____

1.2.2 In which country was/is the laboratory in which you work(ed) as an EC fellow (the host laboratory)?

A	B	CH	D	DK	E	F	GR	I	IRL	IS	L	NL	N	P	S	SF	UK	Other:
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐ _____

1.2.3 When were/are you on an EC fellowship?

Start: month: ____ year: ____ **End:** month: ____ year: ____
(including possible extensions)

1.2.4 Did you apply for an extension of the fellowship?

☐ No
☐ Yes, but it was not granted
☐ Yes, extension was granted for _____ months

1.2.5 Was/is the actual period of your fellowship appropriate?

☐ It should (have) be(en) longer: _____ additional months
☐ It was/is appropriate
☐ It should have been shorter: _____ months less

1.2.6 Did you interrupt/discontinue the fellowship period?

☐ No → *go to 1.2.9*
☐ Yes, interruption for _____ months
☐ Yes, discontinuation of the fellowship

1.2.7 If you discontinued the fellowship, it was

☐ your own decision
☐ the decision of the host laboratory
☐ other, please specify: _____

1.2.8 Why was the period interrupted/discontinued?

☐ Extension of grant was not yet decided when previous period of support ended
☐ Academic/professional reasons, please specify: _____
☐ Private/personal reasons

1.2.9 In which of the following subject areas were you awarded your highest academic degree and in which were you engaged concerning your scientific work prior to and during the fellowship?

	Highest academic degree (prior to the fellowship)	Scientific work prior to the fellowship	Scientific work during the fellowship
Mathematics	☐	☐	☐
Information sciences	☐	☐	☐
Physics	☐	☐	☐
Chemistry	☐	☐	☐
Life sciences	☐	☐	☐
Medicine	☐	☐	☐
Earth sciences	☐	☐	☐
Engineering sciences	☐	☐	☐
Economic sciences	☐	☐	☐
Human and social sciences	☐	☐	☐
Other: _____	☐	☐	☐

2. Before the fellowship

2.1 Major activities prior to the fellowship

2.1.1 What was your status prior to the EC training fellowship? *(multiple reply possible)*

- ☐ Employed → go to 2.1.2
- ☐ Fellow → go to 2.2
- ☐ Student → go to 2.2
- ☐ Doctoral student/candidate → go to 2.2
- ☐ Unemployed → go to 2.2
- ☐ Other, please specify: _____

2.1.2 Type of prior employment:

- ☐ Full time
- ☐ Part time _____ percent

2.1.3 Status of employment:

- ☐ Employee
- ☐ Self-employed → *go to 2.1.6*
- ☐ Other, please specify: _____

2.1.4 Please state the duration of your employment contract prior to the fellowship.

- ☐ Permanent
- ☐ Fixed term, duration: _____ months
- ☐ Short term (weekly or monthly renewable contract)
- ☐ Other, please specify: _____

2.1.5 Did you have an agreement with your employer (prior to the fellowship) about the continuation of employment after the fellowship?

- ☐ Yes, continuation was agreed
- ☐ Continuation not formally agreed, but expected
- ☐ No
- ☐ Other, please specify: _____

2.1.6 In which sector were you active prior to the fellowship?

- ☐ Institute of higher education
- ☐ Public research institute
- ☐ Private research institute
- ☐ International, intergovernmental organisation (in public sector, i.e. excluding private multi-national companies)
- ☐ Other public sector
- ☐ Other private sector
- ☐ Other, please specify: _____

2.1.7 To what extent did your employment prior to the fellowship include the following activities? *(Please state percentages)*

_____ % Teaching
_____ % Research
_____ % Administration
_____ % Services
_____ % Other, please specify: _____
100 %

2.2 Application for the fellowship

2.2.1 How did you learn about the EC training fellowship? *(multiple reply possible)*

- ☐ Information spread by the home institution
- ☐ Professor or supervisor at home institution
- ☐ Person at host laboratory
- ☐ Previous EC fellows
- ☐ Colleague(s)/fellow students
- ☐ EC announcements/publicity
- ☐ National information or contact points
- ☐ Other source, please specify: _____

2.2.2 How did you get in touch with the host laboratory? *(multiple reply possible)*

- ☐ Through existing ties or contacts between home and host institution
- ☐ Through your participation in conferences and meetings
- ☐ Through scientific publications
- ☐ Other, please specify: _____

2.2.3 How is your research project at the host institution related to your work at the time of application?

- ☐ Continuation of research project at host institution
- ☐ New project in the same area of research
- ☐ New area of research in the same scientific discipline
- ☐ New scientific discipline

2.2.4 Why did you decide to apply for an EC fellowship? *Please answer for each statement on the scale from 1 to 5.*

	Very important 1	2	3	4	Not at all important 5
To specialise in certain area	☐	☐	☐	☐	☐
To continue work in same area	☐	☐	☐	☐	☐
To change to new field	☐	☐	☐	☐	☐
To obtain higher degree	☐	☐	☐	☐	☐
To enlarge scientific knowledge	☐	☐	☐	☐	☐
To do work relevant to industry	☐	☐	☐	☐	☐
Because of high reputation of host laboratory	☐	☐	☐	☐	☐
To work with particular supervisor	☐	☐	☐	☐	☐
To improve immediate job prospects	☐	☐	☐	☐	☐
To improve long-term career prospects	☐	☐	☐	☐	☐
To acquire language skills	☐	☐	☐	☐	☐
Attractive conditions of EC fellowship and work	☐	☐	☐	☐	☐
To live abroad and to acquire international experience	☐	☐	☐	☐	☐
No other prospects at this time	☐	☐	☐	☐	☐
Other reasons, please specify:					
_____	☐	☐	☐	☐	☐

2.2.5 What other options did you consider at the time of application?

- ☐ None
- ☐ Employment in previous country
- ☐ Fellowship in previous country
- ☐ Other activity in previous country *(please state activity):* _____
- ☐ Fellowship abroad *(please state country):* _____
- ☐ Employment abroad *(please state country):* _____
- ☐ Other activity abroad *(please state country):* _____

2.2.6 Did you apply for other fellowships beside the EC one?

☐ No
☐ Yes

2.2.7 When did you apply for the EC fellowship?

_____ months before departure

2.2.8 When were you notified that you had been accepted for the EC fellowship?

_____ months before departure

2.2.9 Were there differences between your application and the fellowship awarded?

☐ No
☐ Yes, the duration of the fellowship awarded was _____ months shorter than applied for
☐ Yes, the duration of the fellowship awarded was _____ months longer than applied for
☐ Yes, the amount of grant was lower than applied for
☐ Yes, the amount of grant was higher than applied for
☐ Yes, the category of grant was lower than applied for
☐ Yes, the category of grant was higher than applied for
☐ Yes, other, please specify: _____

2.2.10 Did you apply for a return fellowship?

☐ Yes
☐ No

3. During the fellowship

3.1 Research activities and work conditions

3.1.1 What role did/does the host laboratory play in the area of specialisation you were/are involved in during your EC training fellowship? *Please choose the most appropriate category.*

☐ The host laboratory is one of the few places specialised in this area
☐ One could/can specialise in this area at various other laboratories as well
☐ Area of specialisation did/does not fit well to the host laboratory

3.1.2 Was/is your activity at the host laboratory relevant to industry? *Please choose the most appropriate category.*

☐ Not to my knowledge
☐ Of long-term benefit
☐ Of direct industrial interest
☐ Host laboratory was/is an industrial institution/company

3.1.3 Did/do you have problems of a scientific nature with your supervisor?

☐ No
☐ Yes, moderate
☐ Yes, substantial

If yes, please state problems and their consequences:

_____

_____

3.1.4 Which language did/do you use for professional purposes? If you use(d) more than one language, please state percentages.

☐ Danish	_____ %	☐ Italian	_____ %
☐ Dutch	_____ %	☐ Norwegian	_____ %
☐ English	_____ %	☐ Portuguese	_____ %
☐ Finnish	_____ %	☐ Spanish	_____ %
☐ French	_____ %	☐ Swedish	_____ %
☐ German	_____ %	☐ Other, please specify:	
☐ Greek	_____ %		
☐ Icelandic	_____ %	_____	_____ %

3.1.5 How do you rate your proficiency in the predominantly used language, and in that of your host country (if different) at the beginning and at the end of your fellowship?

	Excellent 1	2	3	4	Poor 5
Professional language at the beginning	☐	☐	☐	☐	☐
Professional language at the end	☐	☐	☐	☐	☐
Host country language at the beginning	☐	☐	☐	☐	☐
Host country language at the end	☐	☐	☐	☐	☐

3.1.6 Please qualify the access you had/have to the resources of the host laboratory.

☐ Same as local staff
☐ Some minor restrictions
☐ Serious restrictions
☐ If applicable, please specify restrictions:

_____

3.1.7 How do you rate the following aspects concerning the conditions of research at the host institution?

	Excellent 1	2	3	4	Poor 5
Scientific supervision	☐	☐	☐	☐	☐
Cooperation with colleagues	☐	☐	☐	☐	☐
Work climate	☐	☐	☐	☐	☐

3.1.8 How would you rate (compared to the standards prevailing in your host laboratory/institution) the quality of equipment at your work place?

Much above average		Average		Well below average
1	2	3	4	5
☐	☐	☐	☐	☐

3.1.9 Did/do you participate in conferences/workshops during your fellowship? *(multiple reply possible)*

☐ Yes, in the country of the host institution
☐ Yes, in home country
☐ Yes, in other European countries
☐ Yes, in other, i.e. non-European, countries
☐ No

3.1.10 Beside the work on your project supported by the EC, were/are you involved in other activities? *(multiple reply possible)*

☐ No
☐ Yes, teaching
☐ Yes, consultancy
☐ Yes, other research projects
☐ Yes, other, please specify: _____

3.2 Social/cultural activities and living conditions

3.2.1 Please state the frequency of the following experiences and activities during your fellowship period abroad.

	Very often 1	2	3	4	None at all 5
Personal contacts with colleagues from the host institution	☐	☐	☐	☐	☐
Discussions/conversations with other people from the host country	☐	☐	☐	☐	☐
Travelling in the host country	☐	☐	☐	☐	☐
Visiting museums, attending concerts, theatre, cinema etc.	☐	☐	☐	☐	☐
Joint leisure activities with host country nationals	☐	☐	☐	☐	☐

3.2.2 Did/does the host laboratory help with any of the following aspects?

	Very much 1	2	3	4	Not at all 5
Finding accommodation	☐	☐	☐	☐	☐
Social contacts and activities	☐	☐	☐	☐	☐
Professional contacts outside host laboratory	☐	☐	☐	☐	☐
Administrative matters (e.g. taxes, social security, registration, etc.)	☐	☐	☐	☐	☐
Other. please specify:					
_____	☐	☐	☐	☐	☐

3.2.3 Did/do you have problems with any of the following aspects during your fellowship?

	Very serious 1	2	3	4	No problems at all 5
Accommodation	☐	☐	☐	☐	☐
Financial matters	☐	☐	☐	☐	☐
Administrative matters with host laboratory	☐	☐	☐	☐	☐
Administrative matters with local authorities	☐	☐	☐	☐	☐
Food	☐	☐	☐	☐	☐
Climate	☐	☐	☐	☐	☐
Professional contacts	☐	☐	☐	☐	☐
Communication outside laboratory	☐	☐	☐	☐	☐
Lifestyle in the host country	☐	☐	☐	☐	☐
Living away from family	☐	☐	☐	☐	☐
Other, please specify:					
_____	☐	☐	☐	☐	☐

3.2.4 To what degree did/do you feel integrated into the academic and social life of the host country?

	Completely 1	2	3	4	Not at all 5
As a researcher at the host institution	☐	☐	☐	☐	☐
Social life in the host country	☐	☐	☐	☐	☐

4. Financial aspects

4.1 Which of the following was/is covered by funds from the EC and how was/is it transferred to you? *(multiple reply possible)*

	Transferred to you by the host institution	Transferred to you by the European Commission directly
Full monthly grant	☐	☐
Part monthly grant	☐	☐
Social benefits	☐	☐
Travel costs to and from host laboratory	☐	☐
Removal costs to and from host country	☐	☐
Travel back to previous institution during period of fellowship	☐	☐
Travel to other laboratories in host country	☐	☐
Travel to conferences, workshops etc.	☐	☐
"Bench" or other laboratory fees	☐	☐
Other, please specify:		
_____	☐	☐

4.2 What type of work contract did/do you have with your host laboratory?

☐ Regular employment contract (i.e. same as local staff)
☐ Special contract for fellows
☐ Other, please specify: _____
☐ No work contract

4.3 How much was/is the total monthly grant (including taxes, insurance etc.) you receive(d) during your fellowship?

_____ / _____ (amount/currency)

4.4 How much did/do you spend during your fellowship per month on the following? *Please state the amount in the currency of your home country.*

	In the host country (amount / currency)	In home country while abroad (amount / currency)
Income tax	_____ / _____	_____ / _____
Health insurance	_____ / _____	_____ / _____
Pension scheme	_____ / _____	_____ / _____
Unemployment insurance	_____ / _____	_____ / _____

4.5 Was/is the financial support you receive(d) during your fellowship either directly or indirectly from the European Commission sufficient to cover all your expenses while abroad?

☐ Yes → *go to 5.1*
☐ No, additional financial support necessary

4.6 Which kind of additional means did/do you use to help finance your stay abroad during the fellowship?

☐ Support from previous organisation
☐ Support from host laboratory
☐ Support from family, private means
☐ Support from other sources, please specify: _____

4.7 If you use(d) additional support, approximately what proportion of your total expenses during the fellowship did/does this represent?

_____ %

5. Administrative issues

5.1 Would you have wished to have more information about the European Commission and the research programmes of the EC?

☐ No
☐ Yes, somewhat more information
☐ Yes, substantially more information

5.2 Did/do you have problems with the following aspects?

	Very serious 1	2	3	4	No problems at all 5
Contacting host laboratory	☐	☐	☐	☐	☐
Being accepted by host laboratory	☐	☐	☐	☐	☐
Obtaining outside references	☐	☐	☐	☐	☐
Initial contact with European Commission	☐	☐	☐	☐	☐
Timing of award decision	☐	☐	☐	☐	☐
Timely arrival of financial support	☐	☐	☐	☐	☐
Reimbursement of removal costs	☐	☐	☐	☐	☐
Reimbursement of travel claims (to congresses etc.)	☐	☐	☐	☐	☐
Reimbursement of medical costs	☐	☐	☐	☐	☐
Application for extension	☐	☐	☐	☐	☐
Payment of "bench" and other laboratory fees	☐	☐	☐	☐	☐
Payment of health insurance	☐	☐	☐	☐	☐
Timing of extension decision	☐	☐	☐	☐	☐
Other problems, please specify:					
_____	☐	☐	☐	☐	☐
_____	☐	☐	☐	☐	☐

5.3 How do you rate the level of support you receive(d) from the EC while on fellowship?

Very generous 1	2	3	4	Inadequate 5
☐	☐	☐	☐	☐

Comment:

_____

6. After the fellowship

6.1 Do you have already completed your EC fellowship?

☐ No → go to 7.5
☐ Yes

6.2 What are the immediate academic achievements of your fellowship? *(multiple reply possible)*

☐ A higher degree in home country
☐ A higher degree in host country
☐ Papers presented at conferences
☐ Papers published in refereed journals
☐ Other publications
☐ Patent(s) applied for or granted
☐ Other, please specify: _____
☐ None

6.3 **Please state your employment/assignment in terms of (A.) type of employment/assignment, (B.) type of work task, (C.) employment sector/organisation and (D.) country, each, (I) shortly after the fellowship, (II) subsequently (if different from I) and (III) currently (if different from I or II).**

	I Shortly after completion	II Subsequently	III Currently
A. Type of employment/assignment			
Self-supported study	☐	☐	☐
Other fellowship	☐	☐	☐
Employment (including self-employed)	☐	☐	☐
Unemployed	☐	☐	☐
Other, please specify:	_____	_____	_____
B. Type of work task			
Research	☐	☐	☐
Teaching	☐	☐	☐
Management/administration	☐	☐	☐
Other, please specify:	_____	_____	_____
C. Employment sector/organisation			
Institute of higher education	☐	☐	☐
Public research institute	☐	☐	☐
Private research institute	☐	☐	☐
International, intergovernmental organisation (in public sector, i.e. excluding private multi-national companies)	☐	☐	☐
Other public organisation	☐	☐	☐
Other private organisation	☐	☐	☐
Other, please specify:	_____	_____	_____
If business enterprise: Number of employed persons			
1 - 50	☐	☐	☐
51 - 100	☐	☐	☐
101 - 250	☐	☐	☐
251 - 500	☐	☐	☐
501 - 1000	☐	☐	☐
1001 - 5000	☐	☐	☐
More than 5000	☐	☐	☐
D. Country			
Austria	☐	☐	☐
Belgium	☐	☐	☐
Denmark	☐	☐	☐
Finland	☐	☐	☐
France	☐	☐	☐
Germany	☐	☐	☐
Greece	☐	☐	☐
Iceland	☐	☐	☐
Ireland	☐	☐	☐
Italy	☐	☐	☐
Luxembourg	☐	☐	☐
The Netherlands	☐	☐	☐
Norway	☐	☐	☐
Portugal	☐	☐	☐
Spain	☐	☐	☐
Sweden	☐	☐	☐
Switzerland	☐	☐	☐
United Kingdom	☐	☐	☐
Other, please specify:	_____	_____	_____

6.4 What is your current position?

- ☐ Senior position (professor, director, head etc.)
- ☐ Advanced position (ass. professor, lecturer, head of department etc.)
- ☐ Professional staff position
- ☐ Other position, please specify: _____

6.5 Have you undertaken any of the following as a result of your fellowship? *(multiple reply possible)*

	Number
☐ Papers presented to scientific conferences	_____
☐ Publications in refereed journals (incl. accepted drafts)	_____
☐ Chapters in scientific books	_____
☐ Author or editor of scientific books	_____
☐ Editor of scientific journals	_____
☐ Editor of other professional journals	_____
☐ Other professional publications	_____
☐ Fellowship(s) received	_____
☐ Award of research grants other than those awarded by EC	_____
☐ Work on an EC research contract (please specify programme and how many contracts from each)	
_____	_____
☐ Graduate, doctoral or postdoctoral courses taught, theses/research supervised	_____
☐ Supervisor of EC fellows	_____
☐ Patent(s) and patent application(s)	_____
☐ Other academic or professional accomplishments, please specify:	
_____	_____

6.6 Do you maintain contacts with your host laboratory?

Close links				No contacts at all
1	2	3	4	5
☐	☐	☐	☐	☐

6.7 How useful do you rate contacts with the host laboratory for your current research activities?

Very useful				Useless
1	2	3	4	5
☐	☐	☐	☐	☐

7. The impact of the fellowship

7.1 How do you rate the outcomes of the fellowship for yourself with regard to the following aspects?

	Very strongly positive				Neutral or no impact				Very strongly negative
	1	2	3	4	5	6	7	8	9
It helped get employment immediately afterwards	☐	☐	☐	☐	☐	☐	☐	☐	☐
Career advantage in academic research	☐	☐	☐	☐	☐	☐	☐	☐	☐
Career advantage in industry	☐	☐	☐	☐	☐	☐	☐	☐	☐
Improvement in general scientific or technical competence	☐	☐	☐	☐	☐	☐	☐	☐	☐
It helped to establish my scientific reputation	☐	☐	☐	☐	☐	☐	☐	☐	☐
It helped to understand relevance of research for industry	☐	☐	☐	☐	☐	☐	☐	☐	☐
It helped to develop social and communication skills	☐	☐	☐	☐	☐	☐	☐	☐	☐
It helped make me internationally more aware and experienced	☐	☐	☐	☐	☐	☐	☐	☐	☐
It helped to establish international research contacts/ networks	☐	☐	☐	☐	☐	☐	☐	☐	☐
Other, please specify:									
_____	☐	☐	☐	☐	☐	☐	☐	☐	☐

7.2 If you turn your life back to the time prior to the fellowship, what would you prefer? *Name the one you prefer most.*

- ☐ The same, i.e. the EC fellowship at the same host laboratory → *go to* 7.3
- ☐ A fellowship in home country
- ☐ A fellowship in a different laboratory in the same host country
- ☐ A fellowship in a different EC country
- ☐ A fellowship in the USA
- ☐ A fellowship in another country (which country?) _____
- ☐ Other, please specify: _____

Why would you prefer this option?

_____

_____

7.3 Did the fellowship cause you to change your discipline, to change your area of specialisation or to work in a more multi-disciplinary way?

- ☐ No
- ☐ Yes, change of discipline
- ☐ Yes, change of area of specialisation
- ☐ Yes, move to work in a more multi-disciplinary way

If yes, state your initial and final area/discipline:

_____

_____

7.4 How do you rate the impact of the EC fellowship programme as a whole?

	Very high 1	2	3	4	No impact at all 5	Don't know
It improves the quality of young researchers in Europe	☐	☐	☐	☐	☐	☐
It enhances the image of the European community	☐	☐	☐	☐	☐	☐
It strengthens European research capability	☐	☐	☐	☐	☐	☐
It improves scientific links between European countries	☐	☐	☐	☐	☐	☐
It improves scientific links between advanced and less-favoured regions	☐	☐	☐	☐	☐	☐
It improves links between academic research and industry	☐	☐	☐	☐	☐	☐
It improves the establishment of international research networks	☐	☐	☐	☐	☐	☐

7.5 Should there be continuing contacts between EC fellows and the European Commission afterwards? If so, what form should it take?

☐ None
☐ Newsletter
☐ Electronic news/pinboards
☐ Meetings
☐ Alumni association
☐ Other, please specify: _____

7.6 Which of the following activities should be undertaken by the European Commission in order to increase the value of EC fellowships? *(multiple reply possible)*

☐ Provision of special certificate for participants
☐ Increase of public awareness
☐ Creation of a significant name as a symbol for the EC fellowships, my suggestion is:

_____

☐ Other, please specify: _____

7.7 What do you see as the major strengths of the EC fellowship programme?

7.8 What do you think are its major weaknesses?

7.9 Do you have suggestions for changes or for improvements?

THANK YOU FOR PARTICIPATING IN THIS STUDY

The Commission of the European Communities
DG XII Science, Research and Development

For reasons of data protection your address will be removed immediately upon receipt of the questionnaire

EC Research Training Fellowships 1987- 1994

Questionnaire for Supervisors

Dear Madam, Dear Sir,

We would like to ask you to inform us, by means of the enclosed questionnaire, on your experiences concerning the training of former EC fellows at your research institution. The questionnaire deals on the one hand with the development and conditions of EC fellowships and gives you on the other hand the opportunity for an assessment of this special kind of research policy undertaken by the European Commission.

Information is being sought from the nearly 4,000 Europeans who where on fellowship between 1987 and 1994 in order to allow an external evaluation of the training activities and make recommendations for the future. Evaluation is an important part of the management process for the European Union's research actions, and we would therefore appreciate your cooperation with this study. The Centre for Research on Higher Education and Work at the University of Kassel is conducting the survey on behalf of the European Commission. Our Centre has undertaken numerous studies involving students, graduates, academic staff etc. from various countries.

I assure you that any information you provide will be handled strictly according to data protection regulations and only made available to the Commission, the sponsor of this survey, in an aggregated and anonymous form. The results will not only be made available to the Commission, but also published.

Should you wish to contact us and learn more about the survey, the following people are involved in the project: Kristin Gagelmann, Friedhelm Maiworm and Ulrich Teichler.

Please send us back your questionnaire(s) filled in as completely as possible. Many thanks for your kind co-operation.

Prof. Dr. Ulrich Teichler, Wissenschaftliches Zentrum für Berufs- und Hochschulforschung, Universität Gesamthochschule Kassel, D-34109 Kassel, Tel.: (49) 561 804 3247; FAX: (49) 561 804 3301

Name and address of your EC Fellow:

(If a more current address of your fellow is available please state here:)

_____

_____

_____

Please refer in section 2. - 4. of the questionnaire to the fellow mentioned above.

If you have been the European host of more than one EU fellow, you will receive a separate questionnaire for each former EU fellow. In this case, please reply only once to questions 1.1-1.6 and 2.1

1. Basic data

1.1 **Year of birth:** 19_____ **1.2** **Gender:** ☐ female ☐ male

1.3 **What is your nationality?**

A	B	CH	D	DK	E	F	GR	I	IRL	IS	L	NL	N	P	S	SF	UK	Other:
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐ _____

1.4 **In which country is your institute/laboratory?**

A	B	CH	D	DK	E	F	GR	I	IRL	ISL	L	NL	N	P	S	SF	UK	Other:
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐ _____

1.5 **Type of organisation**

☐ Institute of higher education
☐ Public research institute
☐ Private research institute
☐ International, intergovernmental organisation (in public sector, i.e. excluding private multinational companies)
☐ Other public organisation
☐ Other private organisation
☐ Other *[please specify]* _____

1.6 **How did you spend your work time on the following activities over the last two years?** *Please state percentages.*

_____ % Teaching
_____ % Research
_____ % Administration
_____ % Service
_____ % Other *[please specify]* _____
100 %

1.7 **How many researchers in total have been worked in your institute/laboratory at the time the fellow stayed at your institute?**

_____ number of researchers in the institute/laboratory

1.8 Did/do the fellow work in a research team with colleagues from your institute and/or other fellows?

- ☐ Yes, the team was set up by _____ number of researchers from your institute
- ☐ Yes, the team was set up by _____ number of other fellows
- ☐ No

2. Background of the fellowship

2.1 How did you learn about the EC training fellowship? (*multiple reply possible*)

- ☐ From Commission official(s)
- ☐ EC announcements/publicity
- ☐ From literature about the scheme
- ☐ From a colleague
- ☐ From the EC fellow
- ☐ From someone in your national administration or contact points
- ☐ Other source *[please specify]* _____

2.2 What kind of contacts did you or your institute/laboratory have with the fellow's former institution? (*multiple reply possible*)

- ☐ No contacts at all
- ☐ Informal contacts between single persons
- ☐ Formal research cooperation between both institutions
- ☐ Both institutions are members of a wider research network
- ☐ Other *[please specify]* _____
- ☐ Not applicable (fellow did not come from an institution, etc.)

2.3 Who initiated the research project for which you and your fellow applied for EC support?

- ☐ You and/or your colleague(s)
- ☐ Prior colleagues/supervisor of the fellow
- ☐ The fellow
- ☐ Other *[please specify]* _____

2.4 Did you know the fellow personally prior to his/her application for the fellowship?

- ☐ Yes
- ☐ No

2.5 What contact did you have with the fellow prior to the application? (*multiple reply possible*)

- ☐ Correspondence
- ☐ Telephone calls
- ☐ Personal contact with colleagues or prior supervisor of the fellow
- ☐ Fellow's personal visit to your laboratory/institution
- ☐ You visited the fellow in his/her prior laboratory/institution
- ☐ Other *[please specify]* _____

2.6 What were the reasons for you to take over the supervision of the fellow's project? (*multiple reply possible*)

- ☐ The project fits your area of specialisation
- ☐ You initiated the project
- ☐ The fellow had asked you to supervise his/her project
- ☐ You are responsible at your institution for the supervision of all fellows
- ☐ Other *[please specify]* _____

2.7 How is the research project undertaken by the fellow linked to

	Closely linked 1	2	3	4	Not at all linked 5
Your own area of specialisation	☐	☐	☐	☐	☐
The area of specialisation of your institution	☐	☐	☐	☐	☐

2.8 Do you have any comments on the application and selection process for the fellowship?

_____

_____

3. Research activities and conditions

3.1 Which language did you mainly use for professional purposes? If you used more than one language, please state percentages.

☐ Danish _____ %
☐ Dutch _____ %
☐ English _____ %
☐ Finnish _____ %
☐ French _____ %
☐ German _____ %
☐ Greek _____ %
☐ Icelandic _____ %
☐ Italian _____ %
☐ Norwegian _____ %
☐ Portuguese _____ %
☐ Spanish _____ %
☐ Swedish _____ %
☐ Other *[please specify]*

_____ _____ %

3.2 Please qualify the access the fellow had/have to the resources of your institution/laboratory.

☐ Same as local staff
☐ Some minor restrictions
☐ Serious restrictions

If applicable, please specify restrictions:

_____

_____

3.3 How would you rate (compared to the standards prevailing in your laboratory/institution) the quality of equipment at the work place of the fellow?

Much above average 1	2	Average 3	4	Well below average 5
☐	☐	☐	☐	☐

3.4 How much time did/do you spend on average per week on the supervision of the fellow?

_____ hours per week

3.5 Have you undertaken any of the following either in cooperation with the fellow or based on results of the research of the fellow? (*multiple response possible*)

	Number
☐ Papers presented to scientific conferences	_____
☐ Publications in refereed journals	_____
☐ Chapters in scientific books	_____
☐ Author or editor of scientific books	_____
☐ Patents and patents applications	_____
☐ Other academic or professional accomplishments *[please specify]*	
_____	_____

3.6 Beside the work on his/her project supported by the EC, was your fellow involved in other activities?

☐ No
☐ Yes, teaching
☐ Yes, consultancy
☐ Yes, other research projects
☐ Yes, other *[please specify]* _____

3.7 Did you have problems of a scientific nature with your fellow?

☐ No
☐ Yes, moderate
☐ Yes, substantial

If yes, please state problems and their consequences:

_____

_____

_____

3.8 Was/is the actual period of the fellowship appropriate for the successful completion of the project?

☐ It should have been longer: _____ additional months
☐ It was appropriate
☐ It should have been shorter: _____ months less

3.9 Did/do you receive EC funds for the institute's/laboratory's expenses related to the fellowship?

☐ No
☐ Yes, funds appropriate to the expenses
☐ Yes, but the funds are clearly below the expenses

3.10 Has your fellow already completed his EC supported fellowship project?

☐ No → *go to 4.1*
☐ Yes

3.11 Do you have any plans for joint research work with the fellow? *(multiple reply possible)*

- ☐ Yes, work now in progress without EU support
- ☐ Yes, work now in progress with EU support
- ☐ Yes, proposal has been submitted to EU for funding
- ☐ Yes, proposal has been submitted to another agency
- ☐ Expect to formulate a joint project
- ☐ Not sure/too early to say
- ☐ Probably not
- ☐ Very definitely not

3.12 Do you expect to visit the fellow in his/her own laboratory as a result of the fellowship?

- ☐ Have already visited
- ☐ Expect to do so during the next year
- ☐ Colleague will be visiting
- ☐ No plans to visit

3.13 Do you maintain contacts with your fellow?

Close links				No contacts at all
1	2	3	4	5
☐	☐	☐	☐	☐

3.14 Do you rate contact with the fellow after the fellowship period as useful for the research activities of your lab?

Very useful				Useless
1	2	3	4	5
☐	☐	☐	☐	☐

4. Assessment and Impacts

4.1 How would you rate (compared to the standards prevailing in your institute/laboratory) the quality of the research conducted by the EC fellow while at your lab?

Much above average		Average		Well below average
1	2	3	4	5
☐	☐	☐	☐	☐

4.2 How would you rate the utility of the fellows' work to the programme of your laboratory?

Very important				Not at all important
1	2	3	4	5
☐	☐	☐	☐	☐

4.3 In retrospect, would you accept the same fellow again?

- ☐ Yes, definitely
- ☐ Yes, probably
- ☐ Probably not
- ☐ Definitely not

If not, please state the reasons:

_____

_____

_____

4.4 How do you rate the level of support provided by the EC to the fellow and the host institution/laboratory?

	Very generous 1	2	3	4	Inadequate 5	No funds received
Grants for fellows	☐	☐	☐	☐	☐	
Funds for the host institution/laboratory	☐	☐	☐	☐	☐	☐

4.5 To what extent do you agree to the following statements?

	Strongly agree 1	2	3	4	Strongly disagree 5
Preparation of the application for the fellowships is too time-consuming	☐	☐	☐	☐	☐
Selection criteria are not sufficiently transparent	☐	☐	☐	☐	☐
Overall application and award procedure is too long	☐	☐	☐	☐	☐
All lab costs (material, equipment etc.) related to the hosting of fellows should be covered by the EU	☐	☐	☐	☐	☐

4.6 How do you view the impact of the EC research training fellowship programme as a whole?

	Very much 1	2	3	4	Not at all 5	Don't know
It improves the quality of young researchers in Europe	☐	☐	☐	☐	☐	☐
It enhances the image of the European community	☐	☐	☐	☐	☐	☐
It strengthens European research capability	☐	☐	☐	☐	☐	☐
It improves scientific links between European countries	☐	☐	☐	☐	☐	☐
It improves scientific links between advanced and less-favoured regions	☐	☐	☐	☐	☐	☐
It improves links between academic research and industry	☐	☐	☐	☐	☐	☐
It improves the establishments of international research networks	☐	☐	☐	☐	☐	☐

4.7 What do you see as the major strengths of the EC research training fellowship programme?

4.8 What do you think are its major weaknesses?

4.9 Do you have suggestions for change or for improvement?

THANK YOU FOR PARTICIPATING IN THIS STUDY

The Commission of the European Communities
DG XII Science, Research and Development

EC Research Training Fellowships 1987 - 1994

Questionnaire for Administrators

Dear Madam, Dear Sir,

We would like to ask you to inform us, by means of the enclosed questionnaire, of your experiences concerning the administration of EC fellowships for research training at your institution. Information is being sought from the nearly 3,000 European researchers who were on fellowship between 1987 and 1994 in order to allow an external evaluation of the training activity and make recommendations for the future. Evaluation is an important part of the management process for the European Union's research actions, and we would therefore appreciate your cooperation.

The Centre for Research on Higher Education and Work at the University of Kassel is conducting this survey on behalf of the European Commission. Our Centre has undertaken numerous studies involving students, graduates, academic and administrative staff etc. from various countries.

I assure you that any information you provide will be handled strictly according to data protection regulations and only made available to the European Commission, the sponsor of this survey, in an aggregate and anonymous form. The results are planned to be published subsequently.

Should you wish to contact us and learn more about the survey, the following people are involved in the project: Kristin Gagelmann, Bernhard Krede, Friedhelm Maiworm and Ulrich Teichler. We would be glad to send you an overview of the most important results following completion of the study.

Prof. Dr. Ulrich Teichler, Wissenschaftliches Zentrum für Berufs- und Hochschulforschung, Universität Gesamthochschule Kassel, D-34109 Kassel, Tel.: (49) 561 804 3247;
FAX: (49) 561 804 3301

1. Profile of the laboratory/institution

1.1 In which country is your laboratory/institution located?

_____

1.2 Please indicate the type of institution you are working in.

- ☐ Institute of higher education
- ☐ Public research institute
- ☐ Private research institute
- ☐ International, intergovernmental organisation (in public sector, i.e. excluding private multinational companies)
- ☐ Other public institution
- ☐ Other private institution
- ☐ Other *[please specify]*

_____

1.3 How many research training fellows from other countries altogether (including those funded by other means) did you have in your institution in 1994?

_____ total number of fellows from other countries in 1994

1.4 Has your laboratory/institution established administrative or service units predominantly in support of international/European activities?

- ☐ No → *go to 2.1*
- ☐ Yes

1.5 Please state the number of professional staff members active in the respective unit(s) in 1994.

_____ number of professional staff members in 1994

1.6 What are the main functions of administrative or service units that support of international/ European activities? *(multiple reply possible)*

- ☐ Administration and planning of international activities
- ☐ Training activities (e.g. language training, etc.)
- ☐ Assistance, guidance, and caring for students and/ or staff
- ☐ Counselling of students and/or staff
- ☐ Support of networks with other institutions concerning international cooperation
- ☐ Other *[please specify]*

_____

_____

_____

2. Administration of EU fellows

As far as no general rules are addressed, please fill in the answers to the following questions with respect to the fellows mentioned in the accompanying letter.

2.1 Please indicate the way EC fellows at your institution were funded.

- ☐ Directly by the European Commission → *go to 2.7*
- ☐ Partly through your institution (by funds you received from the European Commission) and/or other sources
- ☐ Entirely through your institution (by funds you received from the European Commission)

2.2 Which of the following did you provide to the EC fellows and which were the sources of finance? *(multiple reply possible)*

	Sources of finance: EC grants and subsidies	Sources of finance: Other funds (national grants etc.)
Full monthly grant	☐	☐
Part monthly grant	☐	☐
Social benefits	☐	☐
Travel costs to and from host lab	☐	☐
Removal costs to and from host country	☐	☐
Travel back to previous institution during period of fellowship	☐	☐
Travel to other labs in host country	☐	☐
Travel to conferences, workshops etc.	☐	☐
"Bench" or other lab fees	☐	☐
Other *[please specify]* _____	☐	☐

_____

_____

2.3 What kind of employment status did/do the EC fellows have at your laboratory/institution? *(multiple reply possible)*

- ☐ Employed (e.g. same work contract as local staff)
- ☐ Self-employed (e.g. honorarium etc.)
- ☐ Student/doctoral student
- ☐ Other *[please specify]*

_____

_____

_____

2.4 Does your institution have different legal statutory options for the employment of EC fellows?

☐ No → *go to 2.7*

☐ Yes

2.5 What kind of legal status does your institution offer for the employment of EC fellows and which is usually chosen? *(multiple reply possible)*

	Possible option	Usually chosen
Regular employment contract (e.g. same work contract as local staff)	☐	☐
EC fellows are/were treated as self-employed	☐	☐
EC fellows are/were treated as students/doctoral students	☐	☐
Other *[please specify]*	☐	☐

_____

_____

2.6 Can the fellows choose between different types of legal status for their employment?

☐ Yes

☐ No, but they could so in the past, until 19___

☐ No

2.7 How do you handle the tax obligations/social security of the EC fellows?

☐ Directly handled by your institution

☐ You inform the fellows about tax obligations/ social security

☐ You have nothing to do with it

☐ Other *[please specify]*

_____

_____

2.8 As compared to the monthly net income of local staff members at the same level, how would you consider the monthly income of the EC fellows?

☐ Substantially higher

☐ Somewhat higher

☐ About the same

☐ Somewhat lower

☐ Substantially lower

2.9 To what extent do you encounter the following problems in your dealings with the EC fellows?

	Very often 1	2	3	4	Not at all 5
Late notification about start of the fellowship	☐	☐	☐	☐	☐
Missing documents required for the contract	☐	☐	☐	☐	☐
Language problems	☐	☐	☐	☐	☐
Missing bank accounts for money transfer	☐	☐	☐	☐	☐
Missing or invalid invoices/ forms for reimbursement of travel costs etc.	☐	☐	☐	☐	☐
Other *[please specify]* _____	☐	☐	☐	☐	☐

3. EC subsidies for host laboratories/ institutions

3.1 Since 1990 the European Commission awarded contributions for the host institution's administrative and research costs. Did you receive such contributions?

☐ Yes, for all fellows

☐ Yes, for some fellows

☐ No contributions received by the European Commission → *go to 3.4*

3.2 If you received EC contributions, for what purpose did you use it? *Please state percentages.*

_____ % Administrative costs of the institute

_____ % Research costs related to the fellow

_____ % "Bench" or other lab fees

_____ % Fellows' travel costs to conferences, workshops etc.

Other *[please specify]*

_____ % _____

100 %

3.3 How do you rate the level of support you received from the EC as subsidy for your institution?

Very generous 1	2	3	4	Inadequate 5
☐	☐	☐	☐	☐

3.4 Which of the following modes of provision of subsidies are most appropriate for your institution? If different by subject area, please state the range.

- ☐ Fixed sum per fellow and year *(please fill in column A of question 3.5)*
- ☐ Fixed proportion of the amount of grant allocated to the fellow *(please fill in column B of question 3.5)*
- ☐ Reimbursement of real costs → ***go to 4.1***
- ☐ Other *[please specify]* → ***go to 4.1***

3.5 What is the appropriate fixed sum or proportion of grant allocated. If different by subject, please state the sum or proportion for each subject.

	A Appropriate fixed sum (in ECU) per year	B Appropriate proportion of grant allocated
If identical for all subjects	_____	_____ %
If different by subject:		
Mathematics	_____	_____ %
Information sciences	_____	_____ %
Physics	_____	_____ %
Chemistry	_____	_____ %
Life sciences	_____	_____ %
Medicine	_____	_____ %
Earth sciences	_____	_____ %
Engineering sciences	_____	_____ %
Economic sciences	_____	_____ %
Human and social sciences	_____	_____ %
Other *[please specify]*		
_____	_____	_____ %

4. Administration by the European Commission

4.1 Did you have any problems with the following?

	Serious problems 1	2	3	4	No problems at all 5
Initial contact with European Commission	☐	☐	☐	☐	☐
Identifying responsible official in the Commission	☐	☐	☐	☐	☐
Receiving necessary information from the Commission	☐	☐	☐	☐	☐
Timely arrival of funds for the fellows	☐	☐	☐	☐	☐
Timely arrival of funds for your institution	☐	☐	☐	☐	☐
Provision of information requested by the Commission	☐	☐	☐	☐	☐
Other problems *[please specify]*					
_____	☐	☐	☐	☐	☐
_____	☐	☐	☐	☐	☐

If you wish to make further comments, please use the space below.

THANK YOU FOR PARTICIPATING IN THIS STUDY

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CORDIS represents a central source of information crucial for any organisation - be it industry, small and medium-sized enterprises, research organisations or universities - wishing to participate in the exploitation of research results, participate in EU funded science and technology programmes and/or seek partnerships.

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Acronyms - Comdocuments - Contacts

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The CORDIS WWW service can be accessed on the Internet using browser software (e.g. Netscape) and the address is: http://www.cordis.lu/

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Contact details for further Information

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European Commission

EUR 17520 EN — European Research Fellowships 1987-93

Luxembourg: Office for Official Publications of the European Communities

1997 — VI, 184 pp. — 21 x 29.7 cm

ISBN 92-828-0782-7